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Longitudinal Analyses on Self-Esteem and Cognitive Development

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Abstract

Self-esteem is a fundamental aspect of human development and evolution. With a plethora of research studies documenting this phenomenon, there is an ironic lack of meta-analysis. This overview aims to provide such an analysis, and provide incoming researchers a base from which to build.

*Keywords:* self-esteem, development, psychology, cognition, lifespan

## Table of Contents

### CHAPTER 1: INTRODUCTION TO THE STUDY

Background.....	4
Purpose.....	6
Definitions.....	7
Summary.....	9

### CHAPTER 2: LITERATURE REVIEW

Introduction.....	11
Chronological Timeline.....	13
Inconsistencies.....	22
Summary.....	27

### CHAPTER 3: METHODOLOGY

Introduction.....	31
Overview on Hypotheses.....	32
Contrasting Methods.....	33

Summary.....36

**CHAPTER 4: CONCLUSION**

Summary.....37

Introduction

Purpose

Literature Review & Inconsistencies

Methodology

Discussion & Suggestions.....40

**Appendices**.....42

**References**.....44

## Chapter 1: Introduction to the Study

### Background

“ Self-esteem refers to a person’s subjective evaluation of his or her self-worth. The extent to which a person holds positive self-views has been shown to be important for fostering goals, coping strategies, and behaviors that enable success for one’s relationships, career, and well-being” (Orth & Meier, 2013, p. 2). Successful development of self-esteem is an important aspect of success and survival in today's competitive, often elitist society. Competition and elitism tie into socioeconomic status (SES) and the prestige garnered or lack thereof, depending on one’s standing in society. From the acquisition and building of a career, to the fundamentals of self-care and mental hygiene, all aspects of our lives are shaped and influenced by development through social emotional learning which aids in cognitive development (Caspi & Shiner, 2008). We are taught at a young age, by secure or insecure parental attachment, the abstract concept of self-esteem. Its connotation can be either negative or positive. Thus, researchers often ponder to what extent self-esteem affects our development.

The first academic research on self-esteem as a distinct psychological construct is in the multiple studies of psychologist and anthropologist William James. James identified multiple dimensions of one’s own identity, with two distinct levels: processes of knowing one’s self, called the I-Self, and the learned consequences of the acquisition of said knowledge: the Me-self

(James, 1892). He observed how the self, as well as the maintenance of the acquired knowledge by the I-self, create three types of knowledge. These are the material self, social self, and spiritual self. The social self is most representative of early concepts of self-esteem, being comprised of the assumptions one makes about the perceptions of others, and the way that it reflects upon them.

As time progressed, we began to scientifically approach the study of self-esteem. Mead (1934, p. 57), operationally defines self-esteem as an “individual’s subjective evaluation of his or her worth as a person.” It is well known that self-esteem has a significant role to play in shaping how we perceive the world around us and our own perception of reality itself. Yet, understanding the progression of one’s own cognitive development, and the longitudinal effects of self perception, is key to comprehending the extent of this concept. Through examination of each developmental benchmark and systematic analysis of data from within this field, we better understand the impact it has on our lives.

Researchers have been studying self-esteem to better understand how this characteristic of the human psyche develops, grows, and how well it is maintained through the lifespan. As we learn more about the trajectory of self-esteem, questions that were before unanswered seem to materialize. Robins and Trzesniewski (2005) find:

Understanding the trajectory of self-esteem may provide insights into the underlying processes that shape self-esteem development. For example, the fact that self-esteem drops during both adolescence and old age suggests that there

might be something common to both periods (e.g., the confluence of multiple social and physical changes) that negatively affects self-esteem (p.4).

Self-esteem can help influence how individuals parent, teach, and foster stable self-esteem within the various domains of the lifespan (Baumeister, Bushman, & Campbell, 2000). It is not representative of a person's objective individual abilities or talents, but rather the amalgamation of their subjective experiences. These experiences influence the individual's response to the question: "Am I good enough?" Consequently, many factors can sway one's self-perception. As researchers strive to uncover more information on the what, how, and why of self-esteem's inner intricacies, we continue to deepen our knowledge of a concept that may seem at times to be innate.

## **Purpose**

The purpose of this analysis is to help researchers understand the trajectory of self-esteem from young childhood to the end of the life span. While there is much research on the concept of self-esteem as a whole, there is little in terms of a comprehensive overview. Though we can identify many trajectories and theories about its development, it is the goal here to bring the literature together, and lay a foundation from which we can continue to build.

Although researchers such as Orth, Trzeńiewski, Twenge, and Baumeister have studied self-esteem extensively, much of their findings have not received adequate meta-analysis. While



much of their data has been used in countless modern studies, very little has been done to incorporate and synthesize a strong timeline. With the additions of several new sources, as well as earlier foundational studies, we can extrapolate a broader picture of how self-esteem develops, and how it affects our lives within the lifespan.

### **Definitions**

As previously stated, Mead (1934, p. 57) defines self-esteem as “an individual’s subjective evaluation of his or her worth as a person.” In essence, this means that one defines their own value based upon their own biased perceptions. Coopersmith (1967, p. 31) had a much more concise definition: “positive and negative attitudes toward oneself.” This gives us a foundation to conclude that there can be a high level of self-esteem, founded in positive attitudes, and a low level of self-esteem founded in negative attitudes. It is also describes as being relatively easy to sway, being susceptible to new life experiences (Coopersmith, 1967). In fact, Robins and Trzesniewski (2005) state:

As we go through life, our self-esteem inevitably waxes and wanes. These fluctuations in self-esteem reflect changes in our social environment as well as maturational changes such as puberty and cognitive declines in old age. When these changes are experienced by most individuals at about the same age and influence individuals in a similar manner, they will produce normative shifts in self-esteem across developmental periods (p.7).

We also must take into account the concept of self-esteem security. Security of self-esteem relates to how strong one's perception is with their sense of self. This refers to an individual's understanding, acceptance, and opinion of themselves as a person (Crocker & Wolfe, 2001). This sense of security provides a relative stability from which the trajectory and waxing of self-esteem can deviate. As self-esteem trajectories are considered to be relatively normative in their development (Caspi & Shiner, 2008; Chung, Hutteman, Aken, & Denissen, 2017; Gentile, Twenge, & Campbell, 2010), this is often attributed to a baseline security.

Longitudinal studies are often the most utilized method in the study of self-esteem. They observe groups of people over elongated periods of time. Recent studies have been able to compare multiple groups of people from different backgrounds, allowing for observation of potential confounding variables. Confounding variables within longitudinal studies of self-esteem can include SES, racial and ethnic background, projected lifespan, as well as other variables (Gentile, Twenge, & Campbell, 2010; Twenge, 2006). Longitudinal studies have benefits when measuring self-esteem across the lifespan of an individual. These studies can look at groups of individuals throughout developmental domains within the lifespan. This helps researchers understand how self-esteem develops, changes, and is maintained (Gentile, Twenge, & Campbell, 2010; Twenge, 2006).

Self-esteem can be understood in a "rank-order" when referring to the individual. This means self-esteem is organized by order of magnitude through development over the lifespan (Wagner, Gerstorf, Hoppmann, & Luszcz, 2013). Researchers use rank order to compare an individual's views of self, as well as their perceived self-esteem to others within a research

sample. This allows them to recognize the varying levels of significance between individual factors, perceptions, and virtues that assemble to develop self-esteem (Wagner, Gerstorff, Hoppmann, & Luszcz, 2013). Varying factors can include physical appearance, SES, emotional state, interpersonal comparison, and self-efficacy (Brzezinski, Donnellan, & Robins, 2003).

Lastly, the essential definition one needs to understand is the concept of self-esteem trajectories. This term has been used several times thus far, and in essence, it refers to the averaged levels of self-esteem contrasted to an individual's age (Leary, Tambor, Terdal, & Downs, 1995; see Appendix A for complete proofs). Another term referring to a more standardized version of this is called the Self-Esteem Bell-Curve. Many longitudinal studies have been conducted over the past few decades regarding the typical development of self-esteem. These studies have provided a bell-curved framework to better understand the average human's self-esteem trajectory (Orth et al., 2012). From around age 16 to the apex, self-esteem steadily rises at a significant rate. As self-esteem is traced along the bell-curve, it typically peaks around ages 51 to 60 and typically begins to decrease into older adulthood (Orth et al., 2012).

## **Summary**

As research moves forward, it is essential to provide concise, thorough, and detailed analysis of what we have learned, and assess what we have yet to learn. Therefore, the goal of this overview is to provide a framework and meta-analysis of what is currently known about the development of self-esteem. While many studies tend to explore individual concepts and facets of self-esteem, such as narrow-scope scenarios and situational data, there are few that look specifically at its broad and large-scale development. Self-esteem is built as a foundation of

self-worth: being fundamental in the formation of one's self-perceived identity (Erol & Orth, 2011). Consequently, it is very significant for us to grasp the intricacies of its inner workings.

Chapter 2 will delve into the literature, allowing a succinct chronological timeline. Beginning in the elusive origins of self-esteem, and continuing through childhood, adolescence, adulthood, and elderhood, it will become clear where we are in understanding how self-esteem functions and evolves. This analysis will discuss the data and explore the contrasting evidence which refutes much of the established theories.

Chapter 3 will look into the methodology of how researchers have come to these conclusions, highlighting past and present works from which to build. From longitudinal analyses to cross-sectional analyses, each provides infrastructure for further study. This overview will discuss current hypotheses and logical opportunities for future study, as well as compare and contrast the methodologies. Chapter 4 will conclude the analysis, and discuss the implications of the findings. It will look into suggestions of where to go from the latest studies and what trajectory the research may take.

## Chapter 2: Literature Review

### Introduction

Self-esteem is a critical component to a person's life. As previously discussed, longitudinal studies have been used to understand self-esteem from adolescence to older adulthood. These studies focus less on the development of childhood self-esteem, leaving a need to better understand how childhood affects future positive self-worth (Chung, Hutteman, Aken, & Jaap, 2017). Researchers used information from various sources such as parents, teachers, and other observers. Data regarding ratings and reports of early childhood behavior identify and help forecast children that may have increased or decreased levels of self-esteem during traditional periods within developmental phases.

Self-esteem is based on an individual's view of his or her own self-worth and competence (Mead, 1934). Theoretical framework highlights one's social reality as having great importance on the development of self-esteem. It has been proposed several times from the 20th century onward that one's understandings of self-esteem develops from interactions with the social environment and those who are most prominent within it (Harter, 2012; Mead, 1934).

Theories such as the "sociometer theory" (Leary, Tambor, Terdal, & Downs, 1995), underscore self-esteem as a socially influenced product of one's life. It is understood as a psychological measure of how accepted an individual is by others, as well as creating, maintaining, and advancing social and kinship relations (Chung, Hutteman, Aken, & Jaap, 2017). Sociometer theory approaches self-esteem from an evolutionary perspective which asserts that self-esteem is a measure (or sociometer) of social relationships. It was first proposed by Leary,

Tambor, Terdal, and Downs in 1995. According to Leary and his colleagues (1995), self-esteem is a measure of efficiency and how effective one is in social situations and interactions. Focus is centered around relationships and how efficiently one is able to socialize with others. Leary and colleagues (1995) express the significance of sociometer theory:

In brief, conceptualizing the self-esteem system as a sociometer that monitors one's standing with others helps to explain most of its central properties. In addition, it confers an essential function on self-esteem that helps to explain why the need for self-esteem appears to be innate and universal (p. 5).

An important baseline of self-esteem, especially within the sociometer theory, is that one is accepted and valued by others throughout their life (Leary et al., 1995). Research has shown self-esteem to be generally constant through time and various contextual situations yet can fluctuate during phases of developmental transitions (Meier, Orth, Denissen, & Kuhnel, 2011). Through the lens of sociometer theory, one clearly observes how socialization affects self-esteem, and that in turn has a significant effect on how one develops over time. Without a fundamental basis in socialization, one does not have the skills necessary to create meaningful relationships with others. Consequently, they will have significant trouble moving forward in their development due to unhealthy or lacklustre attachments. These insecure attachments will negatively and cyclically affect their levels of self-esteem. This is a strong theory which provides an interesting suggestion from where self-esteem originates. It is from here that one begins their look into how self-esteem is built in an individual, and how it evolves over time.

## **Chronological Timeline**

Research has found that childhood is the starting point from where self-esteem originates. Within the developmental years (toddler age to early childhood), fluctuations of self-esteem dependency can help gauge how strong the individual's self-esteem will be in adulthood. A child's perception of self and the world around them is an integral part of how they will view reality as they continue to move through development (Caspi & Shiner, 2008). According to Chung and colleagues (2017, p.6), "As children's cognitive skills mature, they begin to compare their skills and abilities to their peers and consider feedback from close others, including the extent to which they are liked and accepted by others, and develop more accurate, and generally, less positive self-views."

Two socially indicative components of personality and self-esteem development are shyness and aggression (Bronfenbrenner, 1979). These components reveal how one interacts with their social realities, providing information on temperament and social aptitude (Caspi & Shiner, 2008). Researchers define shyness as relating to feelings of concern, worry, and discomfort in social situations- especially when interacting with strangers (Wagner et al., 2013). Conversely, aggression signifies an intent to mistreat another individual (Anderson & Bushman, 2002; Cheek & Buss, 1981; Coplan & Rubin, 2010).

Differing levels of shyness or aggression can indicate how well an individual can cope with social interactions (Baumeister, Bushman, & Campbell, 2000). Levels of fear or frustration in social situations, through reaction or temperament, may fall on opposite ends of a behavioral spectrum. Aggressive behavior may signify an individual's need to protect a fragile sense of

self-worth, and a lack of confidence in their own abilities (Anderson & Bushman, 2002).

Whereas shyness can denote fears of rejection, failure, or being misunderstood; consequently resulting in avoidance of situations provoking these feelings and fears (Anderson & Bushman, 2002).

Studies have shown high levels of shyness or aggression in childhood behavior to be indicative of a poor lifetime psychological, occupational, and social domain (Caspi et al., 1987). Researchers were primarily attentive to variables regarding aggression and shyness in children between 4 and 6 years old. Researchers propose that these variables are potentially predictors of low self-esteem and are problematic when navigating socially positive situations. Variables correlating with future self-esteem lead researchers to believe they may also affect the development of self-esteem (Chung et al., 2017). In particular, aggression and shyness traits have been found after development in early childhood to be highly consistent throughout the lifespan, denoting important strong indicators of lifetime self-esteem trajectories. As time progresses, more and more self-esteem longitudinal research characterizes childhood shyness and aggression as developing into traits which hinder positive self-esteem (Baumeister, Bushman, & Campbell 2000; Caspi et al., 1987, 1988; Bronfenbrenner, 1979).

Studies have helped to create a map of self-esteem development with the lowest mean standings in early childhood, gradually increasing through adolescence and peaking in adulthood. (Brzezinski, Donnellan, & Robins, 2003; Orth & Robins, 2015; Chung et al., 2017). Thus, self-esteem in childhood can be the most volatile due to initial formation in early developmental years (Eccles, Wigfield, Harold, & Blumenfeld, 1993; Robins, Trzesniewski, Tracy, Gosling, & Potter, 2002; Chung et al., 2017).



Conversely, averaged self-esteem levels are higher in childhood groups compared to adolescent groups (Robins & Trzesniewski, 2005). This is potentially due to their understanding of self-image being idealistically positive. Children in the early phases of life do not compare themselves to others as they would otherwise, as their cognitive abilities grow and mature (Robins & Trzesniewski, 2005). With the growth and maturation of cognitive abilities, children are more likely to consider feelings and acceptance of peers and other important figures. The consideration of social and societal views about oneself helps to create a less idealistic and potentially more accurate view of self perception as development continues (Robins & Trzesniewski, 2005).

Findings of more recent studies looking into the origins of self-esteem may indicate a different understanding of its roots. We know that early childhood sees significant complexities in self-esteem and perception. Harter (2012) states:

What became increasingly evident as self-theorists and researchers delved into the complexity of the self system (see Harter, 1999) was that self-perceptions, beginning in childhood, were more complex... Approaches masked many important, evaluative distinctions that children made about their competence or adequacy in the various domains of their lives. Any sensitive parent or teacher knew this, but it took some time for psychologists to catch up to this reality and embrace it in new assessment tools (p.8).

Academic performance is also an essential facet to self-esteem development in school-aged children. Children who consistently achieve, or consistently fall short, tend to have

heavily influencable individual self-esteem (Baumeister, Bushman, & Campbell, 2000). As children progress throughout their time in school, they will begin to compare their sense of self to other children, based upon their performance in classes, extracurriculars, athletics, and social ability (Eccles et al., 1993). These comparative actions and experiences heavily influence their levels of high and low self-esteem, and also serve to build a foundation for self-esteem security (Baumeister, Bushman, & Campbell, 2000).

Patterns of self-esteem development indicate strong chances of an individual's levels of self-esteem increasing as they get older (Orth and Robins, 2015; Chung et al., 2017). Many factors play into the transitional self-esteem changes. One major consistent factor seems to be an individual's foundation in self-esteem security. Starting a new developmental phase, such as adolescence, brings new expectations, environments, and potential fears.

Upon entering adolescence, peer influence becomes paramount to continuing development of self-esteem. Teenagers will tend move away from academic achievements, often basing their sense of self-worth on social relationships (Harter, 2012). Strong relationships, particularly friendships, are essential in providing adolescents with social support and self-esteem development (Paterson, Pryor, & Field, 1995). With social acceptance, teenagers' sense of self-esteem flourishes due to increased confidence and security. However, ostracism and failed social connections produce insecurity and significantly lower self-esteem (McMullin & Cairney, 2004).

According to Erol and Orth, (2011, p. 10): "Low self-esteem in adolescence is a risk factor for negative outcomes in important life domains. For example, Trzesniewski et al. (2006)

found that low self-esteem during adolescence predicts poorer mental and physical health, worse economic well-being, and higher levels of criminal activity in young adulthood.” Research on self-esteem during adolescence has concluded that it may increase, maintain similar levels, or even decrease (Paterson, Pryor, & Field, 1995).

Another influential factor in the development of self-esteem is an individual’s willingness or unwillingness to take risks. Evidence supports the hypothesis that risk taking on average increases sharply for adolescents, and decreases as they enter young adulthood (Michael & Ben-Zur, 2007; Erol & Orth, 2011). Vast research has indicated risk taking behaviors are less likely to occur within the domains of school and home. However, the peer domain is associated with increased levels of risk taking (Erol & Orth, 2011). This is indicative of the superior significance of peer relations in adolescence, with social relationships surpassing academia and home life within the rank order (Michael & Ben-Zur, 2007). Research suggests that the transitions from childhood into adulthood often indicates a positive correlation of one’s stability in their perceived self-esteem (Meier, Orth, Denisson, & Kühnel, 2011).

Patterns of self-esteem development indicate strong chances of an individual’s levels of self-esteem increasing as they get older (Orth and Robins, 2015; Chung et al., 2017). However, transitions between childhood into adolescence, and adolescence to adulthood, often show the most fluctuation in self-esteem levels (Orth & Robins, 2015; Chung et al., 2017). Since self-esteem fluctuates during transitions, it is possible that its normal distribution would look differently compared to more stable domains of a lifespan. Yet, the transition from the adolescent phase to young adulthood may be less jarring, due to having considerably higher cognitive

function (Erol & Orth, 2011). Needless to say, research on the transition between adolescence and adulthood is inconclusive and also requires more study (Erol & Orth, 2011).

The few studies done on young adulthood self-esteem indicate a progression of positive growth in self-esteem (Harter, 2012). Longitudinal researchers have found differences in how individuals develop self-esteem from childhood to adulthood. Individuals are likely to develop higher levels of self-esteem as they enter young adulthood due to several factors which play into most individual's lives as they transition (Bronfenbrenner, 1979). These include a sense of mastery in one's life, environment, and personal competency. Along with mastery, factors of risk taking, levels of perceived health, and SES play an influential role in adult self-esteem development and stability (Erol & Orth, 2011).

SES specifically linked to income is another factor that may impact self-esteem. Financial stability and SES are associated with an individual's prestige, and that becomes the rank order focus in early adulthood (Meier et al., 2011). It is theorized that money becomes more of a concern further into adulthood, whether it is responsibilities, goals, or having the money to retire (Reitzes, Mutran, & Fernandez, 1996). Further, major complications in young adulthood can be traced back to poor self-esteem earlier in life, with particular emphasis on self-efficacy and one's ability to provide for themselves (Twenge & Campbell, 2002). As stability and prestige are the primary rank order at this stage, an inability to achieve these goals is catastrophic for self-esteem levels. The impacts of income and SES on young adults has shown to have significant impact (Twenge & Campbell, 2002). Young adulthood is known as a time when individuals, especially within the United States, begin to build lives of their own. It would stand

to reason that one's ability to navigate their reality with earned income would have an impact on self-esteem levels.

Finally, education plays a critical role in self-esteem growth in adulthood, impacted greatly by SES. Education can help an individual improve prestige, stability, and their ability to navigate the world around them. Researchers suggest a wide gap between individuals who possess levels of higher education and those who do not (Orth & Robins, 2015; Orth et. al., 2012). SES, including education, income, and social status significantly increases one's potential for higher self-esteem throughout adult life (see Appendix B for complete proofs).

Self-esteem stability seems to be more variable as individuals progress into older adult life. Some research shows as people reach older adulthood, maintaining and preserving mental faculties helps strengthen foundational self-esteem from earlier developmental phases (Orth et al., 2012). Conversely, other data shows individuals entering older adulthood lose self-esteem. This could be attributed to individuals facing health concerns, including functionality and chronic health ailments in old age (Orth & Robins, 2015).

As individuals age, SES and health factors are subject to increased potential changes as they approach the end of their lifespan. Most researchers suggest that, self-esteem on average, peaks at the age of 60 and rapidly declines thereafter (Meier et al., 2011). Interestingly, the loss of autonomy and control over one's body has a significant correlation with this sharp decline in self-esteem. According to Erol and Orth (2011), one longitudinal study has provided support for this hypothesis. They propose several potential factors for why individuals in good health may

have comparatively higher levels of self-esteem. Potential factors for this correlation is the ability to be more social and encounter less stress. Whereas those in poorer health tend not to exhibit these traits (Erol & Orth, 2011). In essence, this means that the post-median sections of the self-esteem bell-curve generally have a sharper decline in self-esteem levels.

It is difficult to offer a consistent average for cohorts of individuals in elderhood due to several confounding and mediating factors at play. Factors of work, families, and relationships are more consistent in young to middle adulthood than in older adulthood. Continuing into elderhood, the rank order shifts to a sense of self-autonomy as the primary objective (Coopersmith, 1967). Unfortunately, many individuals find themselves in situations feeling infantilized as younger individuals tend to the needs of their declining health, physical body issues, or financial support (Cheek & Buss, 1981). Conversely, studies show that more autonomous seniors who find they are able to handle the challenges that arise for longer periods of time have considerably higher levels of self-esteem (Coleman, Aubin, Robinson, Ivani-Chalian, & Briggs, 1993). This insinuates that stronger perceptions of self-efficacy may help stabilize or even increase self-esteem for the individual's remaining lifespan.

Financial changes also tend to significantly affect this sense of self-autonomy (Orth & Robins, 2015). Many times, elderhood is associated with less work and adverse financial changes. An individual may see the need to rely on others or government money as a negative mark against self-esteem. The loss of financial control or the inability to maintain former

lifestyles have a particularly negative impact on self-esteem in advanced age (Coleman et al., 1993).

Researchers cannot generalize self-esteem trajectories in old age without controlling for these numerous variables. Elderhood is a challenging phase for researchers to understand, one that may prove to be consistently different, depending on the sample. This will further indicate the importance of self-autonomy in old age, and how many confounding variables affect it (Crocker & Wolfe, 2001).

The final stage in the lifespan proves to have one last shift in rank order, with life satisfaction becoming the primary goal with extreme margins (Wagner, Gerstorf, Hoppmann, & Luszcz, 2013). As individuals approach death, research has shown that a sense of positive legacy and fulfillment become the strongest influences on self-esteem (Robins et al., 2002). These influences bring one final adjustment to the self-esteem trajectory, which affects one's ability to accept the ensuing death. Individuals with high self-esteem overwhelmingly report a sense of peace and acceptance with death, whereas those with low self-esteem report increased anxiety, fear, and reluctance (Orth, Robins, & Widaman, 2012). As the conclusion of the lifespan occurs, we tend to see that the normative self-esteem bell-curve is complete following the average trajectory of longitudinal development.

## **Inconsistencies**

As with any research, there are inconsistencies and outliers that complicate the normative timeline outlined above. Statistically, most individuals will fall into the normal distribution of self-esteem, which varies between developmental domains. External factors have the potential to push someone out of the normal range of self-esteem levels (Davies & Pickles, 1985).

Developmental delays and other confounding variables can negatively impact the growth of self-esteem throughout the lifespan, potentially creating an outlier (Skelly, Dettori, & Brodt, 2012).

For instance, demographics play an integral role in the development, stability, and maintenance of self-esteem in adulthood (Baumeister, Bushman, & Campbell, 2000). Overall averages can be calculated, but it is just as important to look at specific individual groups with differing demographic cohorts (Skelly, Dettori, & Brodt, 2012). These cohorts will potentially have different self-esteem trajectories due to mitigating external circumstances. Demographic factors include gender, ethnicity, and to an extent, SES: all have been found to have some impact on self-esteem (Davies & Pickles, 1985).

Though averages and rank orders represent an exceptional foundation, it is essential to understand that varying events and experiences have a significant impact on different sample



groups. Cultural, societal, and generational differences may impact one group, yet not be experienced by another group (Twenge, 2006; Chung et al., 2017). In particular, advancements in technology could be considered a confounding variable when comparing sample groups intergenerationally. Technology is changing on a daily basis, making it a variable that is hard to control, especially when comparing cohorts (Skelly, Dettori, & Brodt, 2012). The influence of technology on acceptance, self-importance, and image also has more impact on children developing during the technological age compared to older generations. Some researchers attribute these changes to differing societal views, norms, and their understanding of the impact of character development (Twenge, 2006).

As we progress throughout the lifespan, continuously networking through dense channels of variables and factors becomes an everyday reality. Thus, it is clear that there are vast numbers of variables that could influence self-esteem development and stability. Relational factors influencing self-esteem are heavily researched, as they are an important mitigating factor in many aspects of human development (James, 1892; Mead, 1934; Cheek & Buss, 1981; Coplan & Rubin, 2010). Establishing and maintaining interpersonal connections is paramount to this concept, as socialization is a core tenet of human survival and evolution (Cheek & Buss, 1981). The manner in which these relations are forged, the level of emotional support, and the complexity of the connection all compound into how influential a relation can be; for positive or negative impact (Patterson, Pryor & Field, 1995).

Certain studies have found gender to have an insignificant impact on self-esteem

development and stability (Eccles et al., 1993). Men will often report higher levels of confidence, but statistical findings show gender to not have a significant impact on levels of self-esteem (Eccles et al., 1993). The developmental phases of adolescence and young adulthood are indicated to be the two most impacted phases by gender differences. As individuals move through the phases of development, studies have shown that gender differences become less impactful (Kling, Hyde, Showers, & Buswell, 1999; Robins et al., 2002; Orth & Robins, 2015).

The average trajectory and self-esteem bell-curve have several notable outliers, with ethnic minorities being a relatively constant one. These subjects do not show the same patterns of self-esteem change. For instance, researchers Orth and colleagues (2012, p. 9) state, “African Americans tend to increase sharply during adolescence and young adulthood, and rapidly decrease in older age.” Even after confounding variables such as SES and health factors are controlled for, people of color often seem to exhibit a differing trajectory for self-esteem (Orth et al., 2012).

Further difficulties have arisen with determining to what extent aging impacts self-esteem levels. Conflicting data shows older adulthood (after the age of 51) can either have a large impact or a smaller impact on self-esteem (Orth et al., 2012). It is posited that external factors have a greater effect on self-esteem as one reaches older adulthood. These external factors include financial changes as adults enter older age, potential loss of autonomy, and declining health. Other factors such as one’s mental faculties may play an important part in self-esteem.

These factors can impact all stages of development, though it is heavily prevalent in later life (Orth et al., 2012).

While many longitudinal studies follow multiple groups hoping to understand self-esteem, there is a lack of research on the origins of self-esteem. More recent research takes these beginnings into account. Chung, Hutteman, Aken, and Jaap (2017), propose that aggression and shyness may not be the most influential indicators to the origins of self-esteem. The study observed a sample group of individuals from ages 9 to 29. Following this group for two decades is unique within the realm of longitudinal research, allowing for new and broader understandings (Chung et al., 2017).

Some results aligned with previous data. The transition from middle school to adolescence was consistent and adhered with existing low self-esteem stability theories during this phase of transition. However, this study did indicate a different finding regarding early and middle childhood. Chung and colleagues found more stability in middle childhood years compared to early childhood years. One hypothesis for the different outcome is that 9 and 10 year old individuals may feel more secure and stable closer to the end of elementary school, as it is the first major milestone in their path to independence. Prior to changes in hormones, growth, and mental faculties, individuals in middle childhood may feel secure in social skills and abilities (Chung et al., 2017).

Several variables impact self-esteem development over an individual's lifetime. These variables can impact how rapidly, strongly, and how securely self-esteem develops. Recent research shows self-esteem levels are positively correlated with higher levels of self-understanding (Orth et al., 2012). Higher levels of self-esteem allow individuals to be more secure with themselves, making it easier to be more insightful about strengths and challenges they possess (Meier et al., 2011). Self-esteem levels are also positively correlated to characteristics relating to extroverted tendencies and behaviors. Research has shown that those who are more extroverted oftentimes possess higher levels of self-esteem (Eccles et al., 1993). Thus, self-esteem is positively correlated with characteristics that are presented within individuals as being emotionally balanced and stable (Orth et al., 2012). This would indicate that individuals who possess opposing characteristics would potentially show lower levels of self-esteem.

These contrasting findings indicate a need for continued research into the very creation of individual self-esteem, as it is unclear what catalyst spurs the development of self-esteem in young children. Studies that focus on the trajectory of self-esteem throughout the human lifespan have not yet progressed. As Chung, Hutteman, Aken, and Jaap indicated, previous research hypotheses regarding the origins of self-esteem may not be a complete picture.

The Chung (2017) research does, however, help to confirm the belief that self-esteem can fluctuate during times of developmental transitions. Findings indicate transitions from middle

childhood to adolescence have a negative impact on the stability of self-esteem. This study also reiterates the importance of social interactions in the development of self-esteem, as indicated in previous research (Coopersmith, 1967; Cheek & Buss, 1981; Paterson, Pryor, & Field, 1995; Anderson & Bushman, 2002; Caspi & Shiner, 2008; Kuzucu & Simsek, 2013). This research does indicate that childhood development impacts the stability and resilience of lifelong self-esteem. The more capable children are in their interactions and navigation of their social world, the more potential implications exist for positive self-esteem in the human lifespan (Kuzucu & Simisek, 2008). However, many researchers state that more attention is needed on the stability of self-esteem during middle school years (McMullin & Cairney, 2004; Robins & Trzesniewski, 2005; Wagner et al., 2013). The loss of self-esteem during pre-adolescent and early adolescent years is not always consistent with the longitudinal research being done (Kuzucu et al., 2013).

Adolescence is not the only stage of development which has conflicting evidence complicating the timeline. Even middle adulthood to elderhood has significant contrasting research. One influential study has shown the ages of 59 to 67 years to have no change in self-esteem in an eight year period (Kling, et al., 1999). Several others show the decline beginning between 65 to 75 years (Coleman et al., 1993; Reitzes, Mutran, & Fernandez, 1996). Cross-sectional analysis has shown an increase in self-esteem in later adult years, further adding to inconsistencies in the findings (Orth & Robins, 2015). Self-efficacy and a sense of mastery intertwine and become intersectional at an individual's continuing development of self-esteem.

This is a proposed reasoning as to why the point of decline is so variable. Research has found indications that self-efficacy can be a predictor for self-esteem, however, self-efficacy is not predicted by self-esteem (Reitzes, Mutran, & Fernandez, 1996; McMullin & Cairney, 2004). Researchers hypothesize the development of self-esteem may be predicted by an individual's perception of their own mastery (Erol & Orth, 2011).

### **Summary**

Researchers now have a better understanding of how much self-esteem affects us over time. That being said, it is clear the research has a long way to go to explore the intricacies of its origins, outliers, and evolution. It is, however, a burgeoning area of study which has grown significantly in its scope in the past decade. We are now beginning to understand just how fragile self-esteem can be, and how easily it can be swayed from the most minute detail. We have discovered the milestones of cognitive development, and observed significant fluctuations in its strength and constancy.

From simplistic observational studies to massive longitudinal studies, each can teach us a subtle facet of self-esteem trajectories that is unique, exciting, and new. As the research develops even further into the near future, these influences, evolutions, and development will surely become even more clear. Even though further research is ideal, the current understandings do give strong insight into a general trajectory of self-esteem development, traced along the developmental track of an individual. Self-esteem is seen as peaking for most people in

adulthood and decreasing as individuals enter elderhood (Leary et al., 1995; Crocker & Wolfe, 2001). Since some data from various research studies conflict, it is hard to compare and contrast the finer details as more factors complicate the stability of self-esteem.

It is possible researchers may never come to a cohesive understanding of how self-esteem is impacted throughout all of the developmental phases. Part of observing the human condition is mitigating external and internal factors that impact life and self-esteem (Skelly, Dettori, & Brodt, 2012). There are consistencies across the human lifespan, such as development, aging, and archetypal understandings (Wagner et al., 2013). Yet each person understands the world through their unique set of experiences. The study of self-esteem shows us how complex human lives can be, leading to the possibility that there will never be one generalizable answer to the development of the self-esteem.

Research shows a negative correlation between positive levels of self-esteem and times of transitions in the lifespan (Robins et al., 2002). The stability of self-esteem fluctuates as individuals transition into phases requiring new sets of skills, knowledge, and understanding of the world. Self-esteem becomes the most stable in adulthood, once individuals are more secure in their careers, relationships, and understandings of themselves and their world (Erol & Orth, 2011). Older adulthood draws parallels to transitional times due to a changes in financial status, health, and relationships. Older adults, much like children, become less secure in what they once knew and how their bodies are functioning (Coleman et al., 1993). It is not clear exactly when

the average older adult begins to decline in self-esteem, due to various external confounding variables and inconsistent data.

However, higher levels of self-esteem are positively correlated with feelings of security, insight, and levels of confidence (Harter, 2012). These factors impact a person's outlook on their world, helping to determine the quality of life they might be able to live. This makes self-esteem a critical component to perceived success, self-worth, and happiness.



## **Chapter 3: Methodology**

### **Introduction**

As discussed in chapter 1, longitudinal studies are the most typical research design when studying development. However, there are several types of study methods that provide ample basis and infrastructure for investigation. Studying self-esteem has utilized several research designs, ranging from longitudinal studies to cross-sectional studies. Each method of study provides a unique perspective for viewing the data collected, and can be highly specialized to understand more isolated facets of self-esteem. In particular, this section will examine two research designs that correspond well with studying self-esteem. Each of these will receive an in-depth examination of its structure, and how it will effectively synergize findings from the data collected. Further, an analysis of how self-esteem centric hypotheses are generated, and where researchers gather their information from within the literature.

It is important before examining the methodology the difference between quantitative and qualitative research is discussed. Quantitative research makes use of probability sampling, meaning utilizing random selection, to allow estimations of probability that samples will be valid

and cohesive (Bronfenbrenner, 1979). It also protects the sample from researcher bias. The focus of the study is more in the quantity of data, in that datum points can be reflected and measured in numerical fashion. This type of research provides stark contrast to qualitative research, which focuses much more on demographic data that cannot be expressed in numbers (Bronfenbrenner, 1979). Studies that are experimental in nature will focus on collecting quantitative data, whereas formats such as case studies will focus on collecting qualitative.

### **Overview of Hypotheses**

The multitude of studies in self-esteem have allowed researchers to better understand how self-esteem develops overall. Researchers better understand how moderating factors influence the stability of lifelong self-esteem. Hypotheses of strong correlations between early developmental years and the outcome, stability, and perseverance of self-esteem later in life are able to be synthesized based on the works of their predecessors (Kuzucu & Simsek, 2013).

As mentioned before, there is a lack of literature in meta-analyses on self-esteem. However, there are a few notable sources which appear often in others' work. Researchers such as Orth, Baumeister, Coopersmith, Trzesniewski, Robins, and Bronfenbrenner each have extensive research in the field of self-esteem and whose works appear often in the bibliography of others. They have provided hypothesizing researchers an exceptional amount of founded

inquiry on which to build. These professionals are experts in the field, given their significant amounts of peer reviewed publications.

Researchers such as Chung, Huttemann, Aken, and Denissen have provided experimental proofs to support established theories, solidifying infrastructure for new data synthesis.

Longitudinal studies performed by the likes of Coleman, Aubin, Robinson, Ivani-Chalian, and Briggs provide extensive data, allowing for the creation and strengthening of a self-esteem timeline. Both of these studies were heavily influenced by the work of Leary and colleagues (1995), who established the sociometer theory.

By building off the works of widely accepted theories, connections and correlations are easy to integrate. The more that data is compiled, the clearer the path to additional research is made. By the time new research is incorporated into the existing aggregate, the literature begins to resemble a cluster diagram, with parallels connecting each point of theory. From there, new derivations begin to manifest.

### **Contrasting Research Methods**

The two main methods of inquiry used in the study of self-esteem are longitudinal analysis and cross-sectional analysis, which both fall under the classification of observational studies. This means the independent variable is not within the control of the researcher, often due

to logical or ethical reasoning (APA, 2012). The intent is rather to monitor subjects in a natural environment as opposed to manipulating settings or situations for a desired effect. These are not experimental in nature, but rather correlational. They aim to establish tendencies and interrelationships between subjects, especially within a specified latitude of time.

Longitudinal studies are the most widely used method of inquiry when researching self-esteem. It is a research design which involves repeated observations of the same variable over an elongated length of time (Skelly, Dettori, & Brodt, 2012). Consequently, they follow the same subjects during this pre-defined period in hopes of seeing how the variable changes, evolves, or dissipates over time. These methods are used largely in social psychology and developmental psychology to assess rapid fluctuations in affect, or development (Coopersmith, 1967).

Orth & Robins, (2015) utilize the longitudinal method in their *Lifespan development of self-esteem and its effects on important life outcomes* article. By following their participants over a span of eight years, they were able to see how individuals' levels of self-esteem fluctuated over time, allowing significant breakthroughs in transitional phase self-esteem. Large sample sizes used from a national database provide generalizability to entire populations relating to the studied cohorts self-esteem averages (Orth & Robins, 2015). These studies track self-esteem development over time and give researchers the chance to map out relative averages of self-esteem development.

Due to the broad nature of the observations, longitudinal studies surpass cross-sectional studies in terms of being able to take confounding variables into account without corrupting the data (Skelly, Dettori, & Brodt, 2012). However, it falls short of being able to establish causal relationships, and is very difficult to have an in-depth analysis of data in one point in time.

Cross-sectional analysis looks at data from a subset of the population, intended to be a representative sample, at a specified point in time (Bronfenbrenner, 1979). Where a longitudinal study would opt to examine the frequency of fluctuations and deviations in self-esteem over time, cross-sectional studies observe self-esteem at specific ages, development stages, and transitions (APA, 2012). It also allows for new variations each time a sample is evaluated for research, thus potentially yielding different results (Davies & Pickles, 1985).

Paterson, Pryor, and Field (1995) utilize a cross-sectional research method in their article, *Adolescent attachment to parents and friends in relation to aspects of self-esteem*. They examined a subset of subjects within the adolescent stage of development, a specific point in time, and studied the correlation between parental attachment to self-esteem. This data cannot be generalized to the entire population, but rather to the population within the isolated sector of adolescent subjects.

The paramount disadvantage of cross-sectional analysis is the inability to isolate the stimuli or catalyst of the observed behavior. This method of research cannot define the cause or effect, nor can it adequately address confounding factors, as the scope is particularly narrow in

what the researcher is able to examine (Skelly, Dettori, & Brodt, 2012). However, it is able to achieve a level of specificity that longitudinal studies cannot approach. They allow for a significantly more fixated and centralized look into collected data.

## **Conclusion**

Methodology is the most essential factor of research. Without it, the findings of studies and experiments would be invalid and meaningless. Within the realm of self-esteem, ethics is a stringent mitigating factor in method selection as a researcher cannot ethically manipulate the environment to increase or decrease self-esteem. Thus, observational studies such as longitudinal analysis and cross-sectional analysis, though advantageous and flawed in contrasting ways, provide substantial latitude in how the data can be attained, compiled, and assessed.

Consequently, with such a strong foundation in fundamental methodology, the accepted research that has been assembled is widely respected. Social and developmental psychologists such as Bronfenbrenner, Baumeister, Orth, Coopersmith, and Trzesniewski have legacies that extend beyond their initial works. Research done by their contemporaries builds off the foundations laid by these individuals, expanding into a vast network of infrastructure connecting theory to theory. With an extensive basis in literature, it becomes inevitable that our knowledge on self-esteem will only grow from our current understandings. At the current trajectory and rate

that new information is being synthesized, we can expect this infrastructure to grow relatively soon.

## **Chapter 4: Conclusion**

### **Summary**

#### **Introduction.**

Successful development of self-esteem comprises one of the most fundamental aspects in healthy development. Every aspect of our lives is seen through the lens of self-esteem, as individuals strive to flourish in the environment around them. From a young age, we learn about the complex abstraction of self-esteem, and how everyday occurrences can shape the way we perceive our own intrinsic worth. Self-esteem influences how individuals function, interact, and navigate throughout the lifespan (Baumeister, Bushman, & Campbell, 2000). Researchers consistently aim to discover new findings within the inner intricacies of self-esteem, and the current trend of research is increasing.

#### **Purpose.**

The purpose of this analysis was to help researchers understand what the trajectory of self-esteem looks like from young childhood to older adulthood. There are few instances of meta-analytical studies, with notable sources from Orth, Baumeister, Trzesniewski, and

Bronfenbrenner, thus the goal in this overview was to provide a longitudinal timeline on the development of self-esteem by bringing the literature together, and laying a foundation from which we can continue build. The overview defined the essential terms associated with the study of self-esteem, such as the trajectory, the self-esteem bell-curve, rank ordering, and self-esteem security.

### **Literature Review & Inconsistencies**

The overview asserted that the development of self-esteem begins in early childhood. Theories suggest that the origins may be attributed to socialization by parents, and have a basis in the presence of aggression and shyness (Caspi & Shiner, 2008; Cheek & Buss, 1981). As children age, they begin to incorporate interpersonal comparison into their schemata, further building a larger sense of self-concept. Academics and achievement tend to have a strong influence in this stage, and the early predominance of social relationships in the rank order are seen (Baumeister, Bushman, & Campbell, 2000).

In adolescence, teenagers move away from concepts of academia and achievement in their rank order, opting to identify the amount and magnitude of social relationships as indicators of self-worth (Paterson, Pryor, & Field, 1995). Though early childhood is more volatile in self-esteem security, adolescence tends to have overall low levels of self-esteem, likely due to hormonal changes and changes in lifestyle (Erol & Orth, 2011).



Transitions between developmental stages prove to be highly correlated with fluctuating and unstable levels of self-esteem, with particular difficulties between adolescence and young adulthood (Erol & Orth, 2011). The trajectory of self-esteem is normatively constant and has a steady increase into middle age. Financial stability, SES, and prestige become forefront to the rank order. Upon reaching the mean age of 61, the trajectory begins to shift downward (Chung et al., 2017).

As individuals reach elderhood, focus moves away from prestige to self-autonomy, and the ability to have control over their own bodies and overall health (Wagner et al., 2013). Confounding factors tend to obscure conclusive analysis in elderhood, as most facets of everyday life are in flux and irregular. The downward inclination comes to an end at the end of the lifespan (Leary et al., 1995). As elders reach this benchmark, they have a final focus on a positive legacy and life satisfaction. Several confounding factors and outliers are notable in the timeline, such as SES, ethnicity, gender, study limitations, and advancing technologies (McMullin & Cairney, 2004; Robins & Orth, 2014). Taking these inconsistencies into account helps to outline potential new routes of research.

### **Methodology**

There are many individuals who provide excellent research foundations. Several are highly regarded as experts in the field of self-esteem. By examining how a majority of the researchers synthesize their hypotheses, it can become clear how new information and studies

can expand upon the existing literature. Further, utilizing observational studies such as longitudinal analysis and cross-sectional analysis provide specialized and targeted approaches to obtaining data and creating a conclusive theory (Bronfenbrenner, 1979; Skelly, Dettori, & Brodt, 2012).

### **Discussion & Suggestions**

In short, having a secure sense of self-esteem is one of the fundamental factors in sustaining a healthy, productive, and enjoyable life. It is the intersection of self-worth, self-security, self-identity, and self-perception. As we move forward into the future, these findings will help to bring about even stronger understandings about how we as individuals function. Humans are always evolving, and as they do, more data will constantly need to be compiled. With a strong base of research to build upon, and significant methodology to utilize, researchers have a wealth of resources at their disposal to discover new findings regarding self-esteem.

Without experimental method, it's extremely difficult to isolate the exact origin of self-esteem. Yet, there are potential avenues of research that exist in the early childhood stages. Cross-sectional studies could prove to be extremely productive in gauging where cognition and self-esteem intersect, and begin to branch into correlations in cognitive psychology. We know very little about how children at early stages of development perceive themselves, and if they are

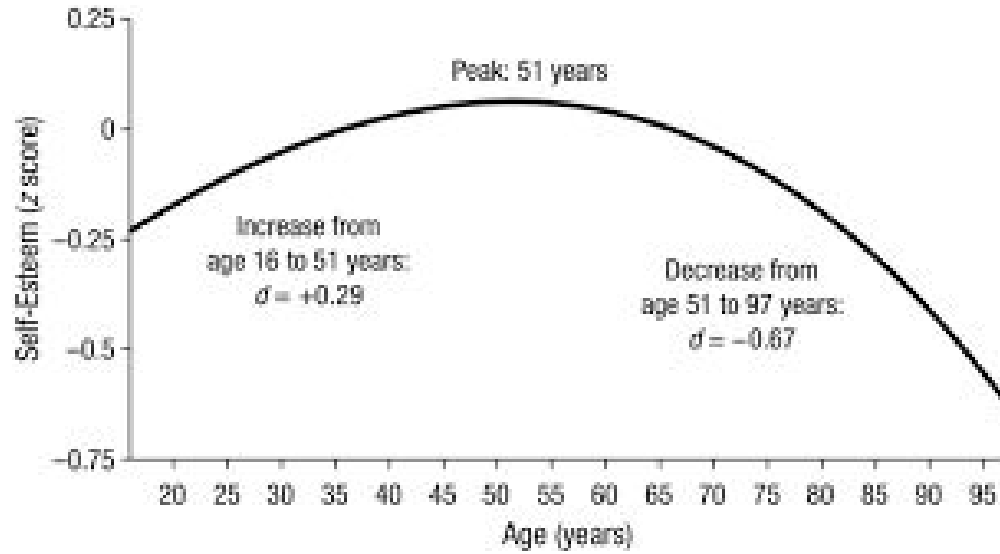
capable of forming foundations of self-identity. This could be an interesting concept of research that can easily branch into several realms of psychological study.

Further, young adulthood has very little in terms of heavy research into self-esteem trajectories. Millennials, for example, report increasing cases of depression. It would be important to gauge whether or not this is an evolutionary, environmental, or social function and if it has affected self-esteem bell curve.

We must acknowledge the excellent data of the multitude of researchers who dedicated significant time, energy, and effort into uncovering the realms of self-esteem. Psychology has progressed far since James (1892) first discovered self-esteem, and it is thanks to the extraordinary measures taken by a number of driven scientists. As we keep moving forward, it is important to bear this in mind. Societal variables are evolving at such a rapid pace that the data may become obsolete before conclusion can be drawn. While we uncover new and exciting findings in the years to come, the rate of understanding will surely increase.

## Appendix A

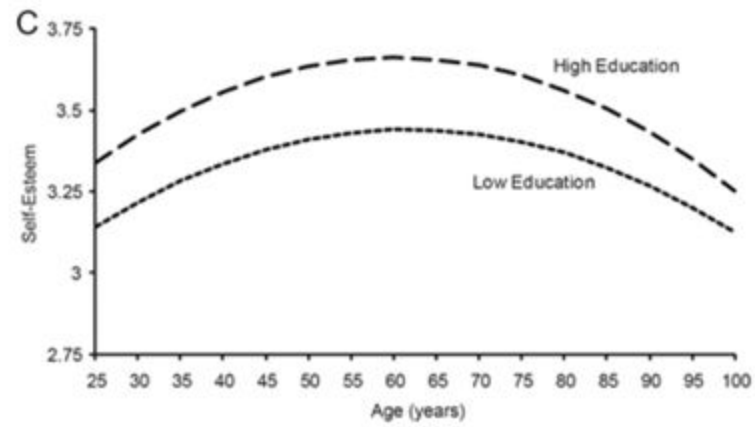
### The Self-Esteem Bell Curve



(Leary et al., 1995)

## Appendix B

### Education Intersections with Self-Esteem Trajectories



(Erol & Orth, 2011)

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