

Fall 1-1-2017

# The Role of Sibling Configuration in Identity and Career Development

Alyssa Sullinger

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THE ROLE OF SIBLING CONFIGURATION IN IDENTITY AND CAREER  
DEVELOPMENT

A Thesis

Duquesne University

Duquesne University

In partial fulfillment of the requirements for  
the degree of Master's in Counseling Education

By

Alyssa Sullinger

December 2017

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Alyssa Sullinger

2017

**DUQUESNE UNIVERSITY**  
**SCHOOL OF EDUCATION**  
**Department of Counseling, Psychology and Special Education**

***Master's Thesis***

Submitted in Partial Fulfillment of the Requirements  
For the Degree of Master of Science in Education (M.S.Ed.)

**Counselor Education Program**

***Presented by:***

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October 20, 2017

THE ROLE OF SIBLING CONFIGURATION IN IDENTITY AND CAREER  
DEVELOPMENT

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## ABSTRACT

# THE ROLE OF SIBLING CONFIGURATION IN IDENTITY AND CAREER DEVELOPMENT

By

Alyssa Sullinger

December 2017

Thesis supervised by Dr. Matthew J. Bundick

This synthetic literature review examines the characteristics of sibling configurations—which refer to the ordinal position of siblings, age spacing, and sex composition—in a traditional family setting. A general review of the literature on sibling configurations and relationships is presented, and their potential roles in the development of personality traits, self-concept and identity, and career choices are explored. This synthesis describes how sibling birth rank is affiliated with generalized personality traits and likelihood of siblings with these traits identifying with corresponding career interest-types associated with Holland’s vocational theory. Suggestions for future research include empirical studies investigating these connections, such the use of qualitative studies that examine the insights and experiences of all sibling groups, including those that represent less traditional configurations.

## ACKNOWLEDGEMENT

Dr. Bundick:

I cannot thank you enough for all of the time and support you provided to me throughout this process. I appreciate your encouragement and kind words that helped me through completing this thesis. Your constant guidance only strengthened my motivation to do amazing work to the highest of my potential. I am so grateful for your participation and your patience.

Dr. Zeleke and Dr. Hyatt-Burkhart:

I am tremendously appreciative that you both agreed to your role and presence on my thesis committee and for being so confident in my ability along the way. Thank you for all of your helpful insights that have strengthened the quality of my work. Thank you both for all of your time, effort, feedback and ongoing support!

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## **Introduction**

This study seeks to identify the connections between the role of experiences of sibling configuration in identity and career development. More specifically, the study will examine how sibling configuration is related to potential developmental differences and the effects on future career choice. The thesis proposes a process model in which sibling configuration affects intellectual development which in turn influences identity and career development, while also acknowledging that sibling configuration can influence identity and career development through other mechanisms as well (such as self-esteem or personality development). These topics will be addressed through a synthetic review of the academic literature in these fields that also explores generalizations that relate to the sex component of sibling dynamics.

### **Problem Statement**

The initial problem that relates to this focus is that the connections between sibling configuration, individual factors, identity development and career development do not seem to have been significantly researched. Some existing research suggests that birth order has no relevant effect on identity development, and much of the contradicting research that suggests significant relevance between birth order and identity development is relatively outdated. This synthetic literature review aspires to provide additional clarity in regard to both outdated information and opposing conclusions on the topic.

Moreover, examining sibling relationships and their effect on identity and career development may shed some light on how people are motivated differently and seek out certain career paths. Bradley (1982) discussed how siblings compete for significance within their families in an attempt to find their own unique contribution within the family. For example, in many ways firstborn siblings have fresh pick over how they chart their life paths, but each

following sibling, who each may be seeking uniqueness, has fewer untouched options to choose. The advantage in available choices may contribute to older siblings having higher academic or skill achievement than younger siblings, and can in turn inhibit younger siblings from successfully finding “significance,” which will be further discussed throughout the literature review. Studying this topic may plausibly provide researchers with insight on how to fill this gap and better equip counselors (as well as parents, educators, etc.) to empower young people to alleviate the competition for significance within sibling configuration.

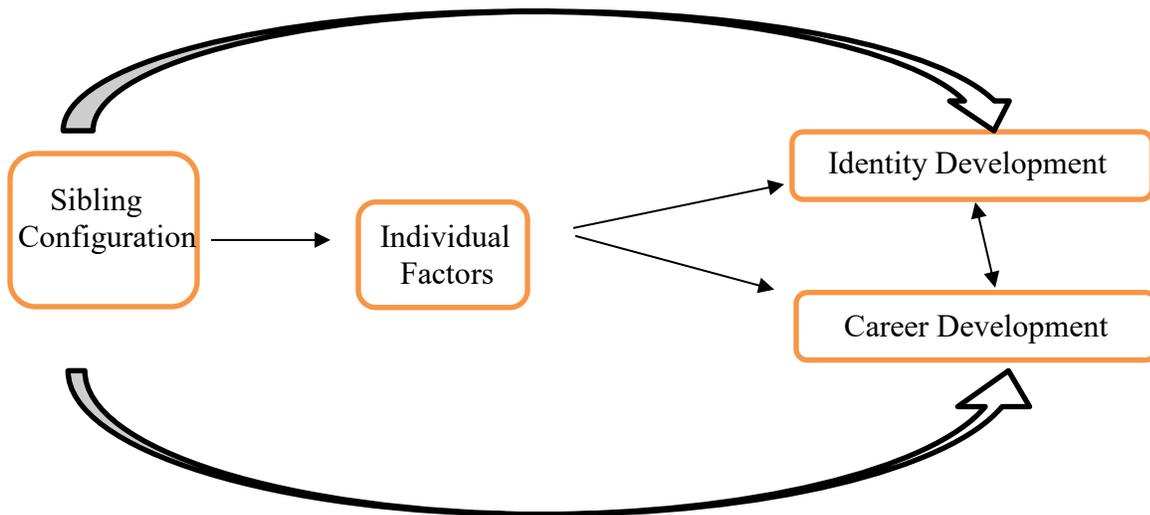
## **Background**

The topic of this thesis is important to the growth of the counseling field. Firstly, conditions present in early development can influence outcomes later in development. Bradley (1982) stated that human influence begins in the home during early age and the roles are introduced by family structure. Bradley (1982) and Kluger (2006) similarly stated that these interactions throughout developmental stages are likely to have an impact on one’s worldview, morals, goals, and problem-solving skills, which further influence one’s experience in later developmental stages.

This synthetic literature review expects to find variation in development across birth order. For example, Steelman, Powell, Werum, and Carter (2002) assert that firstborns develop in a more intellectual atmosphere than younger siblings and tend to have more demanding careers, while younger siblings seem to be more innovative in terms of career choices. However, there is lack of clarity regarding whether intelligence affects career choice. In a more neutral stance, Svanum and Bringle (1980) found that birth order can generally affect intelligence and therefore has potential to influence both identity and career development, but no significant relationship is found between birth order and intelligence.

During emerging adulthood, according to Bradley (1982), individuals are searching for career paths that they believe offer a satisfying level of achievement and fulfillment in some way. As a result, early childhood interactions are likely to have some influence on career decision-making as well as sense of self. Bradley (1982), Gilbert (2006) and Kluger (2006) alike discussed how sibling dynamic impacts both cognitive and emotional development, including how individuals choose to build relationships and the experiences they choose to expose themselves. Aspects of personality may additionally be attributed to sibling configuration, suggesting it may serve as a crucial factor in personal growth.

In an effort to describe how these processes may work, this thesis proposes a process model (see Figure 1 below) that identifies the potential developmental flow of influence that sibling configuration may have on individuals' identity and career development, with particular focus on the intermediary role of individual factors, such as personality and intelligence.



*Figure 1.* A proposed model of the roles of sibling influence and individual factors in identity and career development.

## **Purpose**

The purpose of this synthetic literature review is to seek better understanding of the ways in which the presence and configuration of siblings in one's childhood may influence one's later development of self and career decision-making processes. The presenting purpose of the review will be examined by first identifying societal norms relating to sibling configuration and the effect that siblings can have on one's personality, worldview, and sense of identity. The effects of these interactions and experiences within the family unit will also be considered when analyzing one's career development. Interactions and experiences will be evaluated by way of recognizing the normative process of developing identity and career separately, while also identifying how they intersect and influence one another.

## **Significance**

This synthetic review of the literature examines one's role in a family system, with emphasis on the presence and configuration of siblings. Therefore, the review studies how sibling configuration may directly and indirectly influence one's early childhood experience, which includes aspects such as the personality development and intellectual climate of a household that may influence one's intellectual development. The review then examines how individuals' identity develops from childhood to adolescence to emerging adulthood. Lastly, the thesis studies how decisions, specifically career-oriented decisions, are made through late adolescence and emerging adulthood, and how these decisions are related to self-esteem development, in the context of fulfilling a role within a family system.

## **Methodology**

This study will use a synthetic literature review; as such, its methods will rely primarily on search engines such as PsycINFO, PsycARTICLES, Scopus, and Google Scholar. Key terms

such as identity development, sibling configuration, birth order, and career decision making will be searched. Key models being examined are Erik Erikson's stages of psychosocial development, Alfred Adler's theory of sibling birth order, James Marcia's identity statuses model, Donald Super's Life Span, Life Space career development model, John Holland's model of career interests, the Five Factor model of personality, confluence theory, and the notion of intellectual climate.

### **Structure of the Thesis**

The synthetic literature review will begin by identifying general norms within sibling relationships and the previously established effects it has on various aspects of individual development (e.g., self-esteem, personality), introducing, but not yet describing, the influence it may have on individual factors, career development and identity development. Next, the review will cover variables of sibling configuration, including distinctions such as birth order and psychological position in the family system. It will then describe normative identity development, including the process an individual may experience as distinguished by different developmental models, emphasizing different stages and age-appropriate tasks that may be experienced in adolescence and emerging adulthood. The role of demographics and individual factors will also be integrated wherever relevant here. A review of the normative processes of career development will follow, also providing a brief overview of some career development theories and age-appropriate tasks. Demographics and influence of intelligence on career development will also be covered.

The following section will entail the synthesis of the literature. It will start by examining and identifying how identity development and career development intersect and influence one another. It will then connect the dots between what is already known and what previous research

has not yet covered regarding the connections and intersections between sibling configuration, identity development and career development. The review will also speculate as to possible outcomes that are not covered by literature. Lastly, future research will be suggested in relation to what kind of studies could be done to provide evidence of the ideas and model presented in this review.

### **Generalizations of Sibling Configuration**

Dimensions of sibling relationships, or sibling configuration, are compiled of number of siblings, birth order, age gaps, and sex composition. Sibling configuration might be thought of as providing a training ground for both our social skills and problem-solving abilities. In a sense, they serve as personal rehearsal tools due to their permanence, giving brothers and sisters the chance to trial and error their emotional responses before implementing these responses in interactions to playmates. Kluger (2006) stated that this proximity of individuals results in both positive and negative experiences, such as learning, social skills, and conflict. Kluger (2006) discussed a study that found siblings with proficient compromising and conflict-resolution skills within play sessions were more likely to utilize these skills when playing with peers in a classroom setting.

Kluger (2006) referenced another study completed by Pennsylvania State University (1996), finding that by the age of 11, children spend 33% of free time with siblings, which is more than they spend in any other social setting. Even during adolescence, siblings spend about 10 hours a week together. Although this number may sound small, Gilbert (2006) expressed that adolescence marks the transition between family enmeshment and the differentiation of self. *Family enmeshment* refers to closeness in family members that create impairment in personal growth and unique sense of self, which differs significantly from differentiation of self. Kerr

(2000) defined *differentiation of self* as extent of nonconformity and autonomy in regard to personal functioning, decision-making and moral development. Gilbert (2006) explained that this time period is when adolescents are becoming more involved in academics, athletics, extracurricular activities, social groups, and after school jobs, which contribute further to differentiation of self and weaken feelings of enmeshment. Even with all these other important aspects of differentiating identity happening, they still spend a solid amount of time interacting with siblings.

Kluger (2006) compared family systems to medical-based facilities. He refers to the parents as the doctors, who make their rounds and ensure that all major needs are met and that safety is managed in the household. They remedy all major concerns and have the final say. Siblings, on the other hand, are compared to the nurses, who provide day-to-day support, are closer in proximity at all times, and sometimes get the brunt and tension of the unsatisfied individual. This is an informative comparison of roles within the family system because although researchers tend to examine closely the child-parent relationship in terms of human development, they often overlook the less obvious but vital impact of the sibling relationships.

### **Sibling Role Models versus Sibling Rivalry**

Like all relationships, siblings experience a fluctuation of positive and negative moments. Especially during earlier interactions, siblings at times may share a best friend bond, where they purposely enjoy the same activities and style. When present, lack of differentiation between siblings is attributed to the close proximity over the years that gave them similar experiences, making them similar individuals. Kluger (2006) stated that siblings at times mimic one another's skills even during early adolescence. This could be attributed to the younger sibling attempting to keep up with the older sibling, or even the younger sibling may develop a skill that is unique

from the older sibling, who does not want to be outdone by the younger counterpart. The motivation of mimicking skills may be an effect of what Pfouts (1976) referred to as Social Comparison Theory, which describes the means of an individual defining the self in comparison to qualities of another, similar person. The attitude toward self is not only based on abilities and characteristics of that individual, but self-value is diminished when not achievement is not the same or superior to someone else. Siblings are a convenient comparison due to the permanence and proximity.

Sibling rivalries are born when an individual struggles to define clear identity within the family against the standards of another sibling. Kluger (2006) argued that siblings strive to differentiate the self from the other siblings by finding their own means of significance. In other words, siblings strive for personality territory within the family. Pfouts (1976) noted that whichever child possesses what appear to be less valuable characteristics will then show more hostility toward the sibling with more valued characteristics.

The sibling rivalry dives deeper than what may appear to be petty fights between two or more jealous siblings. According to Kluger (2006), evolutionary impulses urge parents to favor the child that shows most value. His study suggests that 60% of moms and 70% of dads show preference for one child over others, and that child tends to be the eldest. Kluger (2006) also argued that children are able to pick up on their parents' impulses. These children tend to be more dysphoric with self-esteem issues, and report feeling unworthy but unsure as to why. The children exhibiting these negative symptoms tend to be younger siblings. According to Kluger (2006), a sibling who feels disfavored in comparison to a sibling is more likely to exhibit more external behavioral problems, especially when the sibling relationship is harmful rather than affectionate.

## **Variations in Parenting Styles across Sibling Birth Order**

According to Mendelson and Gottlieb (1994), parents are more likely to convey higher expectations on firstborns than their siblings. Bradley (1982) also claimed that firstborns are more likely to be subjected to parental control, ultimately leading the firstborns to be more responsible with higher self-esteem. Thus, firstborns are likely to receive higher expectations and stronger reinforcement, likely leading them to successfully develop competence and a sense of industry. However, if the second-born children are then subject to less encouragement, they may not receive the same useful support from parental figures as their elder sibling received. Hester, Osborne, and Nguyen (1992) found that typically households with more siblings will have greater expectations of higher academic achievement placed on the children by the parents. The authors suggest that this is likely due to the fact that an eldest child is more likely to perform well, elevating the expectations of the children to follow; however, expectation without reinforcement likely leaves the younger siblings without the requisite academic support, compared to their eldest counterpart. Second-born children do not tend to grow up with the same encouragement to complete tasks as their elder counterparts. One can also assume that new parents typically have more uninterrupted time to spend teaching and encouraging their first child, assisting the child in the development of his or her intellect. This opportunity may not be so present with later-born children, comparatively. It is likely for this to be an opportunity for a younger sibling to experience thoughts of being less valued by parents than other siblings, which in turn can increase hostility in the sibling relationship.

### **Distinguishing Sibling Configuration**

Steelman, Powell, Werum, and Carter (2002) described sibling configuration as incorporating features of the family system such as the number of siblings, ordinal position, age

spacing between children, and sex composition of the siblings. Sibling dynamics and individual development are affected by these configurations that Bradley (1982) referred to as “silent variables,” or the components of one’s experiences, perceptions, and “psychological position in the family” that are easily and often overlooked (p. 25). Some of these aspects include the structure and dynamics of sibling relationships. Therefore, these factors are likely to influence the acquired personality traits of each individual.

### **Psychological Position**

Although ordinal rank of sibling birth order impacts sibling dynamics and individual identity development, the typical characteristics associated with being the firstborn or lastborn do not always apply psychologically. Birth order itself does not influence character, more so it is the situation or environment into which an individual is born in and how the individual interprets the situation or environment. The implementation of this interpretation, rather than being a product of birth order is instead attributable to psychological position.

According to Bradley (1982), psychological position refers to the development and dynamics of personality and how a child perceives and evaluates self and others. Children form principles about what they believe is expected of them as a result of hereditary endowment and environmental opportunities. How a child creates these perceptions differently than siblings may affect character and role within the sibling configuration. It is not always the case that psychological position aligns with birth order; for example, Bradley (1982) found that if a firstborn is imbecilic, the second born child may take on the psychological role of the firstborn position. To take on the role of being a firstborn would imply some specific traits and characteristics that are affiliated with being the firstborn. Similarly, firstborn male and female siblings can *both* share the psychological position of firstborn, since they are likely to experience

early interactions and development incomparably. The same concept applies to siblings with significant age gaps. If a child is born with significant distance from older siblings, the youngest child then has a firstborn complex as well, establishing the psychological position of firstborn.

A person's ability to adjust psychological position despite ordinal position shows that birth order is an influence on personality, not a determinant. Birth order differs from psychological position in that birth order represents the ordinal gaps between birth of siblings and the affiliated personality traits that go with age rank. However, birth order and psychological position share similarities such that both examine the effects of sibling relationships on personality and identity development, as well as influence of formative experiences on cognitive skills and social skills.

### **Sibling Rank Characteristics**

Several different theories have been conceptualized in attempt to explain how siblings from the same family can have such different personalities. Spiegel (2010) argued that being raised in the same environment will likely result in significant differences between siblings.

One factor that influences personality gaps between siblings is the environment in which they are raised. Children are typically experiencing the same family system differently due to gaps in age. According to Spiegel (2010), when major family events occur, siblings of different ages will process the information and differ in how they make meaning out of the experience. If a family has to relocate school districts, for example, the move from effect a 16 year old differently than it would a 12 year old or a 22 year old. Individuals experiencing different stages of life will not be affected by changes the same way. In addition, research by Runco and Bahleda (1987) was congruent with Spiegel's claim that early interactions impact personalities

due to varying parenting techniques across siblings. Parents treat each child differently because each child has different needs.

Exaggeration from family members, according to Spiegel (2010), also influence personality traits in siblings. Spiegel found that if parents attribute absolute personality traits to children, regardless of how fitting that absolute trait is, the label is likely to influence choices children make in the future, and the trait escalates overtime. Spiegel (2010) provided an example that addresses a parent identifying one child as being incredibly extraverted and social, while the other child is viewed as “such a private introvert.” Compared to another family, the introverted child may actually appear somewhat extraverted, but because this child has been assigned the identity of introvert from parents, he or she is more likely to take on that role and interact with others accordingly.

Spiegel identifies the final factor that would she identifies as causing the difference in personality, which is divergence. Spiegel (2010) explained that competition is an aspect of evolution that motivates behavior; specifically in this situation, siblings are competing for the time, love and affection of parents. The goal of divergence in sibling configuration is to minimize the competition to alleviate the direct force. As Alder would describe as the search for significance, Spiegel (2010) attributed divergence to the “specialization of different niches.”

According to Runco and Bahleda (1987), those on each opposite end of birth order tend to have the most “divergent thinking patterns” (p. 123). For example, oldest siblings, only children, and youngest siblings experience higher levels of creativity. Contrary to Bradley (1982) but congruent with Runco and Bahleda (1987), Rohrer, Egloff, Gutenberg, and Schumkle (2015) discussed that in regard to the Big Five personality traits—openness, conscientiousness,

extraversion, agreeableness, and neuroticism—siblings closer in age generally reflect more similarities in traits (p. 14227).

**Typical characteristics of firstborns.** Gilbert (2006) mentioned that firstborns are more likely to be responsible with high self-esteem. Similarly, Collins (2006) stated that firstborns are more conscientious, achieving, and obedient. They learn the concept of power at a young age and often show desire to lead, protect and help, which implies that responsibility is an imperative attribute for those firstborns, or siblings in the psychological position of firstborn, to obtain. Similarly, Diaz (2013) stated that firstborn children desire the leadership position that they observe from their parents and act accordingly in order to acquire what they perceive as power. After younger siblings are born, according to Gilbert (2006), firstborns are likely to feel threatened of losing the “top position” and are less inclined to take risks due to pressure to succeed. The pressure to succeed also attributes to them often being viewed as stubborn, or having trouble admitting when they are wrong. Diaz (2013) also found that this sibling tends to struggle the most with receiving criticism as the leader of the siblings, and they are therefore more likely to be aggressive and in need of validation. According to Collins (2006), firstborns are more likely to be mature and introverted due to a portion of their early development was spent interacting with mainly adults. They are more likely to obtain jobs in law, medicine, business and math than their younger counterparts due to the congruency of self-concept, which will be examined throughout the synthetic literature review.

**Typical characteristics of middle children.** Though firstborn and lastborn children usually have concrete personality traits associated, middle children do not always share this quality. Middle children, according to Gilbert (2006), tend to have qualities that attribute more to one end of the birth order spectrum. Furthermore, Diaz (2013) stated that these siblings tend

to acquire traits that are contradictory to older siblings. They often do not receive as much individualized time as firstborn children or as much coddling as younger siblings, so they regularly do not feel that they have a special place within the family system, and this is expressed through developing skills and interests that may be different from the rest of the family. These individuals tend to have a more diverse range of emotions and often show more symptoms of insecurity since they feel they do not receive as much attention as sibling counterparts. Gilbert (2006) stated that middle children often feel a sense of not belonging and this insecurity can affect their relationships. Similarly, Collin (2006) described middle children as exhibiting lower self-esteem than sibling counterparts; however, they are often more autonomous and rebellious. These individuals develop adaptive coping techniques and an overall relaxed temperament. They are described by Collins (2006) as natural mediators, proficient in developing interpersonal connections and serve as advocates for justice. Research by Diaz (2013) described middle children as secretive, independent, resourceful and inventive. They read people well due to spending much time observing family members, and they are therefore more flexible in how they view others, reinforcing their abilities to be mediators and advocates for justice.

**Typical characteristics of the lastborn.** Lastborn individuals often share qualities with middle children, yet they have their own defining characteristics as well. These individuals typically benefit from parents being more comfortable and experienced in parenting, according to Diaz (2013), so their early experiences are less constraining. They tend to have fewer rules to follow and lower expectations at times in comparison to their older counterparts. Gilbert (2006) described youngest children as often more artistic, creative, and less likely to be burdened by obligation. Collins (2006) continued to describe them as emotional, extraverted, talkative and disobedient, as well as limit-testers, irresponsible and selfish. Due to being descendent in birth

order, they seek differentiation from others and strive for uniqueness. Adler (1964) also found that lastborn children are control-seeking, manipulative, entertaining, and dependent. Many of these characteristics, such as limit-testing, irresponsibility, selfishness, and manipulative, are attributed to difference in parenting styles. Diaz (2013) explained that since this will be last the child in the house and serves as the true “baby” in the family, parents will often coddle the child more than they have with the others, and at times, this coddling can result in the individual growing up with a sense of helplessness and dependence. Like middle children, they tend to develop adaptive coping techniques and possess a relaxed temperament. For youngest siblings, according to Diaz (2013), these traits are likely part of lastborn identity because these individuals as children often view older siblings as being stronger and more competent, which can inflict feelings of inferiority. Collins (2006) found that in adulthood, they are likely to be empathic, unique and authoritarian. Lastborn individuals are more likely to find jobs in art, photography, music, or teaching.

### **The Search for Significance**

Siblings tend to compete, whether it be consciously or unconsciously, especially those with an age gap between one to four years. According to Bradley (1982), these siblings are the ones who experience the most dynamic impact, whereas those with age gaps of precisely ten to twelve-years function as multiple “firstborns” (p. 27). This finding is attributed to the psychological position of the family, where youngest children are separated by their siblings via age gaps, then function as a new firstborn. Traits identified with the psychological position of the firstborn include perception that this child has some degree of power in the family and take on leadership roles, interacting mostly with adults rather than peers their own age. The age gap in its entirety is the initial accomplishment of significance that is unique to this sibling.

Firstborns have the advantage of choosing, more or less, how they want to be significant. Gilbert (2006) explained that siblings descending in ordinal rank often see the previously chosen method of significance as being off-limits. For example, if the firstborn excels in academics, the second-born may choose to take a talent in sports. The third-born (and later-borns), with a major time disadvantage, may not be able to keep up with his or her siblings' performances in academia or sports, and therefore may turn to music or art as a meaning of significance. The more siblings, the less opportunity one has for unique significance. Adler (1964) described this as the master motive of human behavior, or the generalizable intent of why siblings seek skills, talents, and achievement overall.

### **Siblings and Intelligence**

One can assume that new parents have more uninterrupted time to spend teaching and encouraging their first child in order to assist in the development of his or her intellect. This opportunity is not so present with later-born children, comparatively. According to Steelman, et al. (2002), firstborns develop and mold in a more intellectual atmosphere within the family setting than younger counterparts. *Confluence theory* addresses the relationship between intelligence, family size, birth order, and age spacing between children (Svanum & Bringle, 1980). When siblings are born within close age gaps, the overall quality of intelligence in the household continues to descend, referred to as *intellectual climate*. Intellectual climate, according to Steelman et al. (2002), can be measured by taking the average intellectual ability of all family members without accounting for age. In a sense, the overall intelligence of the household lies with its “weakest link”—typically, the youngest child. Svanum and Bringle (1980) found that a significant relationship exists between intellectual ability and descending sibling order when testing cognitive development via the confluence model. Steelman et al.

(2002) found that firstborns have the “edge” over later born siblings due to having more opportunities of uninterrupted time with the parents while the intellectual climate is still at its peak, thus being more likely to be raised in a “correspondingly a more intellectually sophisticated environment” (p. 250).

**Redefining intelligence within sibling ordinal rank.** Intellectual climate’s impact on development is not so simple, as the second-born individuals have ways of overcoming barriers. Pine (1995) conducted a study that explored the differences in child vocabulary across birth order, closely examining onsets, rate, style and content. Examination of these factors was done by comparing the first 50 words spoken by nine firstborns and their younger siblings. The younger siblings tended to experience more “frozen” phrases and used a larger number of personal pronouns. Younger siblings reached 50 words much later than that of their elder counterparts; however, no significant difference was presented between the two groups’ ability to reach the 100-word milestone. Pine (1995) claimed this provides some support that firstborns progress quicker than the younger siblings, yet does not necessarily view this as a disadvantage to the younger siblings. No suggestion is present that they are comparably intellectually inferior but perhaps instead have a different view of learning through observation than the firstborns. Younger siblings are exposed to more cohabitants in a household, lowering the intellectual climate and therefore have more individuals to observe and learn from, otherwise described by Pine (1995) as living in a “multi-speaker world” (p. 280).

Some of the most passionate teachers are children who are serving knowledge to their even younger siblings, according to Recchia, Howe, and Alexander (2009), who argue that firstborn siblings gain more self-benefit from teaching a younger sibling than vice versa. The claim is based on the researchers’ assessments that measure speech, accuracy in instructions, and

ability to correct the learner effectively as needed. Although older siblings serve as better teachers than the younger counterparts, according to a research study conducted by Rodgers and Rowe (1985), no significant difference is present between intelligence of firstborns and second-born siblings. Rodgers and Rowe explain that the largest dissimilarity between intelligence lies between a firstborn sibling and a fourth-born sibling, with an average score differentiation of 11.5 points, while the rest of the scores were similar in nature (p. 745).

### **Sibling Differences in Intelligence: Nature or Nurture?**

Regardless of intellectual climate and vocabulary milestones, younger siblings are intellectually in step with their elder counterparts. Firstborn children are often viewed as being academically superior to their younger counterparts, but this may be attributed to firstborns having the first pick of possible niches. Succeeding in academics is a traditional method of meeting parental expectations of being significant. Younger siblings likely choose divergent career paths from their typically achievement-oriented eldest sibling as a means of searching for significance and specialization of their own niche. Characteristics of firstborn siblings result in these individuals typically being achievement-oriented; however, younger siblings do not permanently share those same characteristics—often intentionally. Therefore, younger siblings are habitually categorized as intellectually inferior, though the assumption is not always accurate.

### **Normative Processes of Identity Development**

According to Waterman (1982), identity is made up of an individual having a clear sense of self, commitments toward goals, values, and beliefs; implementation of these commitments, consideration regarding the presence of varying identity alternatives, possessing to some extent self-acceptance, a sense of personal uniqueness, and confidence regarding one's own future. Throughout the course of one's life, an individual is able to highlight certain past events and

experiences that resembles portions of a “personal life story.” In other words, each person has a unique narrative that assists in making sense of a worldview that is shaped by experience.

McLean and Breen (2009) referred to this concept as narrative identity development, which occurs by reflecting on and talking about past experiences in relation to positive well-being.

Crocetti (2017) found that the number of identity crises increase the more often someone is exposed to potential alternative “commitments,” such as goals, values, and beliefs. One is able to reflect on this on-going process by making meaning out of experiences and learning more about self.

Meaning-making is an especially important concept during adolescence because of how fresh and significant identity development is at this stage. At this time, adolescents are emerging their cognitive skills that will assist them in facilitating and overcoming identity crises, which will set the base for how their personality will continue to develop throughout the lifespan. Mind development progresses individuals toward producing personal norms and reaching their full potential. Erikson (1968) stated that identity provides individuals with some extent of self-concept that proceeds an individual toward a meaningful sense of direction.

### **Berzonsky’s Identity Styles and Coping Strategies**

Berzonsky (1992) developed a self-constructed theory of the self that explored how individuals differ in their social-cognitive processes that are utilized to form and maintain self-identity. Berzonsky identified three different processing orientations and affiliated them with Marcia’s Ego Identity Status Model. *Information Orientation*, similar to Marcia’s identity achievement and moratorium, is a processing orientation that identifies individuals as actively seeking and elaborating on self-relevant information when making personal decisions and problem-solving strategies. These individuals participate in revising and accommodating self-

construct and tend to come from individuated family systems. According to Berzonsky, they are able to facilitate anxiety reactions in regard to coping skills. Berzonsky (1992) found that they strive for introspectiveness and are open to new values and ideas that they have not yet identified as part of self even if doing so may risk dissonance and “undermine credibility” of self.

Those who identify with *Normative Orientation* are similar to those in Marcia’s foreclosure status. These individuals are likely to conform to the expectations of close significant others, such as parents or spouses. They often conserve existing self-constructs and are willing to defend against information or distort experiences that may invalidate their sense of self. As a result, they tend to have limited differentiation in contrast with information-oriented counterparts. Those who identify with normative orientation tend to be closed off to information that is relevant to values and belief systems. Berzonsky (1992) found that in relation to coping skills, these individuals are usually not open to alternative values and actions and are defensive against self-invalidating suggestions or inferences.

Lastly is *Avoidant Orientation*, which reflects aspects of Marcia’s diffusion status. Individuals who identify with this processing orientation tend to avoid personal problems and confrontations about personal identity. Often their behavior is determined by contingencies and situational occurrences and consequences. These individuals have a loose identity structure that Berzonsky (1992) defined as fragmented, and these individuals cope through procrastination and avoidance as a way of responding to stressors by denying or escaping from immediate emotional distress. Berzonsky (1992) found that individuals who identify with avoidant orientation utilize wishful thinking, distancing, and tension-reduction. They avoid direct confrontation with minimal long-term changes in identity. Coping strategies deem maladaptive and debilitating.

## **Ego Identity Status**

In expansion of Erikson's psychosocial developmental stage regarding identity and role confusion, Marcia's identity status paradigm identifies four statuses of ever-changing identity. Ego status is based on the presence or absence of exploration and commitment in human identity. Exploration and commitment are attributed to examining varieties of nature and culture, such as vocation, spirituality and social relationships. Marcia (1966) defined *exploration* as active search of alternative identities, values, and roles; whereas *commitment* is the decision to adhere to an examined set of goals, values, or role. Identity status is resolved by how an individual experiences a *crisis*, or the reexamination of choices and values, and makes sense of it. How an individual makes sense of reexamination based on their personality traits then determines the status of their sense of identity.

*Identity achievement* refers to individuals who have experienced and overcame a crisis, resulting in the development of firm commitments due to that crisis. Individuals with firm commitments in identity will also be able to identify strengths, weaknesses, and unique qualities. *Moratorium* refers to individuals who are currently experiencing an identity crisis and are actively seeking alternative commitments. In contrast are those in *foreclosure*, and these individuals are not and have not experienced a major identity crisis but anyway have firm commitments. Lastly is *identity diffusion*, where one is not experiencing a crisis or is unable to resolve the crisis and is also not seeking any commitment.

## **Traits and Interests Specifically Affiliated with Ego Identity Status**

Students with identity achievement, according to Waterman (1982), showed higher interest in cultural aspects such as art, music, literature, and foreign films. This interest can be attributed to either the creation of an identity crisis or the resolution of one. Culture in this way,

Waterman (1982) found, can provide exposure to new ideas that may challenge pre-existing views and even propose identity alternatives to which new exploration and commitments can be developed. Additionally, participants who categorize as possessing identity achievement ego status also report showing interest in writing poetry. Waterman (1982) believed that this is because those with a strong sense of self have better means of expressing their identification than those who have not mastered identity achievement.

Regardless of ego status, however, as mentioned by McLean and Breen (2009), creating an identity narrative that one feels help make sense of experiences and worldview, then the individual is more likely to experience positive well-being. The researchers, in addition, found that positive self-narratives are connected to higher levels of self-esteem. Furthermore, a more positive predictor of well-being comes from those who have redemptive sequencing in their narratives. Individuals who feel that they have overcome an obstacle through the highs and lows are more likely to report positive well-being.

### **Three-Factor Model of Identity**

Crocetti (2017) spoke of a three-factor model in her study that works to capture the ever-changing process of developing and revising identity. The first factor is commitment, in relation to enduring choices made that reinforce self-confidence. Next is referred to as in-depth exploration, which includes actively thinking about commitments that have been enacted. Actively thinking, in this factor, includes reflection, the search for further information, and discussion with others. Lastly is reconsideration of commitment. This resembles comparing current, no longer satisfying commitments to other potential commitments that may deem more satisfying. Crocetti (2017) stated that factors of commitment and reconsideration represent the identity formation cycle as an on-going, ever-changing process.

## **Traits and Interests Affiliated with Three Factors**

Through her research, Crocetti (2017) found that individuals who currently have firm commitments possess more positive, resilient characteristics. They tend to be extraverted, emotionally stable, report high self-concept and self-esteem. These individuals also report positive family relationships, life satisfaction, high academic achievement, and healthy adjustment skills.

Crocetti (2017) reported finding that those in in-depth exploration tend to be agreeable, conscientious, and open to experiences. She also found that they also report positive family relationships and social responsibility, but possess lower levels of emotional stability than those identifying as committed. The individuals who are exploring experience higher levels of both curiosity and distress simultaneously.

Those who are reconsidering their commitments, according to Crocetti (2017) report lower levels of self-concept and self-esteem than individuals experiencing other factors. They are agreeable, extraverted, and report negative family relationships as well as impaired academic achievement. These individuals are experiencing what Erikson (1968) referred to as an identity crisis. Crocetti (2017) found that they are experiencing distress and maladjustment.

**Ego status and three factor model.** Berzonsky (1992) developed the notion of identity styles, which attributed each style to an ego status developed by Marcia. There are three types of identity styles: information orientation, normative orientation, and avoidant orientation. Berzonsky stated that those who are experiencing information orientation are those who also identify with Marcia's identity achievement and moratorium. Those who are experiencing normative orientation are in foreclosure, and people experiencing avoidant orientation are diffused.

Marcia (1966) described individuals who have reached identity achievement as those with firm commitments that have been explored. Another ego status with firm commitments, but without exploration, is foreclosure. Both groups being described as committed are congruent with Crocetti's (2017) commitment factor. Crocetti described committed individuals as being emotionally stable and extraverted.

Marcia describes moratorium ego status as people with previous commitments but are seeking alternative commitments and is recognized as being an identity crisis. Similarly, Crocetti (2017) described those who are in reconsideration of commitment as comparing no longer satisfying commitments to other potential commitments that could be more satisfying than the previous.

### **Relationship between Identity Development and Parenting Styles**

How we view ourselves in comparison to the world begins during early years of development. During toddlerhood and early childhood, the majority of our interactions are with family members like mothers and fathers as well as other guardians who help raise and shape us. One can assume that early interactions with parents and guardians are likely to influence our sense of self later on in life.

Waterman (1982) found that parenting styles influence identification pathways. For example, parents who are permissive, neglecting, or rejecting are more likely to raise children with identity diffusion and find difficulty in resolving identity crises overall. According to Waterman (1982), adolescents who have a greater concept of identity that is congruent with the identity of parents are more likely to form and maintain meaningful commitments. With that being said, since the adolescent identifies closely with the parents' goals and beliefs, the adolescent is more likely to experience the ego status of foreclosure, which in turn means that

they are less likely to search for alternative identities and commitments. Adolescents experiencing the ego status of foreclosure have commitment to the ideals without further exploration.

This study found that authoritarian families raise adolescents to either foreclose due to receiving respect from parents regardless of strict parenting style, or the adolescents will rebel because they constantly struggle to gain any approval from parents. In contrast, democratic parents who are more open and involve their children in decision making tend to raise children who master identity achievement.

**Family dynamics in relation to ego status in adolescents.** Waterman (1982) found that adolescents affiliated with certain ego status were more likely to share similar interactions and feelings toward parents. The study found that both males and females who identify with diffusion report feeling distant from families, stating that their parents are indifferent, inactive, detached, or rejecting. Adolescents who are affiliated with moratorium or identity achievement report having critical parents and are in conflict with family and do not involve them in big decisions. Adolescents who have foreclosed often avoided developmental issues; however, they report being the closest with their parents. More specifically, females report feeling encouraged by fathers, whereas males report that fathers seemed to be more intrusive than supportive. Interestingly, males, though reporting fathers as intrusive, were more willing to involve family members when making big decisions.

### **The Role of Gender on Identity and Esteem**

McLean and Breen (2009) found that between adolescent boys and girls, the contingencies for developing positive self-esteem fluctuate drastically. Girls who are more protective and sympathetic toward others report higher levels of self-esteem, and boys who are

self-satisfied show more self-esteem than boys who are not satisfied with the self. Overall, the researchers found that adolescents who conform to gender norms and expectations are more likely to maintain and increase positive self-view. One can assume that self-satisfaction is not enough for an adolescent girl because of the demands of society on females, and they are likely to spend time reflecting on the self and finding meaning in self-view. Males, however, typically do not experience such intense demands. According to McLean and Breen (2009), males who spend time finding meaning in experiences are more likely to have impaired well-being. Males report higher self-esteem when “meaning-making” ends in redemptive sequencing.

It is suggested that males and females internalize experiences differently; therefore, similar experiences may result in different pathways of identity development. According to the study conducted by Waterman (1982), males are overall more likely to enter identity diffusion than their female counterparts, who score higher on moratorium and identity achievement. It is also mentioned that women, specifically, who exhibit better ability to overcome identity crises are more likely to enter identity achievement, whereas women entering identity diffusion are less able to overcoming psychosocial crisis. This research study does not discover why males and females internalize experience and proceed through identity pathways differently.

An individual’s sense of significance can fluctuate by sex component. According to Todd and Steele (1993), compared to males females experience more struggle in reaching personal fulfillment. However, birth order matters in terms of gender; Todd and Steele also found that women with older brothers reported lower perceptions of self-power, where those with younger brothers reported higher perceptions of self-power. The perception could affect one’s strive for significance, aptitude and developmental processes. Similarly, Steelman et al. (2002) explained that children with brothers have lower academic achievement, but those with sisters have higher

levels of academic achievement. The findings suggest that the sex of siblings may affect achievement and aptitude in individuals. Not only does a general strive for significance influence one's performance and abilities, but the sex of those siblings seems to play a factor as well. Arguably, then, not just birth order but also gender birth order may affect one's future career decision making process.

### **Normative Processes of Career Development**

During adolescence for most individuals, each person begins to conceptualize strengths and interests in order to develop some ideas for potential career choices. Blustein, Devenis, and Kidney (1989) described this process as *career development*. Career development begins with career exploration, which includes self-assessment activities as well as the process of acquiring information from one's environment to simplify decision-making, job entry, and adjustment (Blustein et al., 1989). Two developmental tasks emerge out of this process: (a) exploration of the self and surrounding environment, and (b) overall commitment to career plans. These tasks are typically accurate in pinpointing two major milestones in career development; however, many stages of development occur between these two markers.

### **Life Span-Life Space Theory**

Super (1996) argued that personality change is continuous, and the changes are especially implemented when an individual gains experience through different life roles and stages. He argued that vocational choice is a means of obtaining satisfaction through self-expression and the use of skills and talents. These skills and talents allow people the capability to be competent at numerous occupations, yet people still must find a way to choose a specific vocational path.

**Career stages of development.** Super (1996) found that individuals undergo five major life stages in relation to career development, and these stages begin with career entry and end in

retirement. Although individuals tend to experience the stages in a specific order, they are not necessarily chronological and can be cycled through, especially during career transitions.

The first career development stage is *growth*. Individuals experiencing career-oriented growth are developing self-concept, attitudes, needs, and a general understanding of work culture. Those who are learning these concepts for the first time are most likely childhood age or early adolescent age. Next, individuals enter into the *exploration* stage, which is where people are examining and identifying tentative career choices and whether these choices may be congruent with personal skill development. *Establishment* is when people begin entry-level skill-building and stabilizing their role in an occupational setting by gaining productive experience. Once individuals experience establishment in an occupational setting, they eventually find themselves in *maintenance*, or continuously adjusting to changing demands and expectations that are meant to improve the position. Finally, when one is preparing for retirement, their efforts begin to reduce to the *disengagement* stage.

**Developmental tasks.** Similar to developmental stages, Super (1996) specified further how he views people's experiences in vocational searches by emphasizing slightly more specific, goal-oriented tasks. Individuals are also able to cycle and recycle through the tasks similarly to stages; however, generally-speaking, developmental tasks are often viewed as being age-appropriate in relation to identity development. The first developmental task, which often occurs between the ages of 14 and 18 is *crystallization*. According to Super (1996), this occurs when individuals formulate general vocational goals as they are becoming more aware of work culture, interests and values, and so they begin the planning process. Typically between the ages of 18 and 21 is *specification*, or transforming tentative, generalized career preferences into specific career preferences and related goal-setting. *Implementation*, generally ages 21 through 24,

begins the process of training for a particular job as necessary and obtaining the occupation. After a career has been established comes *stabilization*, or strengthening skills through work experience and confirming the career choice. This occurs between the ages of 24 and 35 for those who are completing a traditional first career cycle as perceived by Super. Lastly, after the age of 35 for many individuals, they begin *consolidation* and move forward to advance in their careers.

### **Career Development and Self-Concept**

Gottfredson's (1981) Theory of Circumscription and Comprise examined how a person's self-concept influences and adjusts aspirations. The theory begins by defining what self-concept personally means to an individual. Gottfredson identifies self-concept as pertaining genetic makeup, environment, culture, experiences, and social relationships. Self-concept is *culturally contingent* and *experience dependent*, meaning that interests, attitudes, and abilities are influenced by surroundings. Gottfredson argues that individuals learn about themselves through engagements with their surroundings that expose their own personal tendencies and attitudes. The importance of personal tendencies falls within the restraints of genetic influences that prompt us to act intentionally toward one direction rather than another. Once the defining and refining of self-concept begins, individuals experience the *process of circumscription*, or the on-going, perceived limitations of aspirations and accessibility of aspirations in relation to self-concept. Table 1 identifies the stages of orientation throughout an individual's development.

Table 1.

*Gottfredson's (1981) Process of Circumscription*

<b>Orientation</b>	<b>Age</b>	<b>Explanation</b>
<i>Size and power</i>	3-5	Child classifies self as weak; wants to be strong (adult)
<i>Sex roles</i>	6-8	Assigns self, roles and activities to gender distinctions
<i>Social valuation</i>	9-13	Conceptualize jobs as activities, income and effort
<i>Internal, unique self</i>	14+	Seek roles compatible with self-concept and accessibility

The first orientation process, size and power, identifies children as classifying things as weak or strong, big or small. They conceptualize where they fall on these spectrums and notice where others fall as well, particularly peers or adults. Children see that adults are stronger and bigger; and therefore, the child typically desires to be an adult. Children then begin to make distinctions about gender categories, roles, and activities. They once again examine and identify where they fall on the spectrum of gender in relation to cultural ideals. Many children then adjust aspirations or self-image to be congruent with cultural expectations. They then begin the next orientation process, social valuation, and conceptualize the roles and activities that create jobs. They attribute occupations to social value, income, status, and the effort it takes to obtain jobs of interest. Individuals adjust their aspirations to fit their views of social value. Lastly, typically around the beginning of adolescence, individuals look for roles that are compatible with self-concept. They replace ideal occupations and roles with ones that are perceived as more realistic, suitable, and personally accessible.

In order to integrate self-concept and aspirations, individuals move on to what Gottfredson describes as *compromise*. When necessary, they replace preferred aspirations for

new aspirations that are perhaps less compatible with self-concept but instead are more accessible. During this process, they examine what alternatives are good enough and which ones do not meet ideal value.

### **Career Development and Personality**

Similar to Gottfredson's (1981) perspectives on how self-concept forms, Krumboltz's Social Learning Theory (see Krumboltz, Mitchell, & Jones, 1976) stated that career decisions stem from four main factors of influence, which are (1) genetic influences, (2) environmental conditions and events, (3) task approach skills, and (4) learning experiences. These factors coincide to develop beliefs on the nature of career in relation to one's self-concept and role in life. One may therefore infer that career choice represents self-concept by way of expressing personality and interests.

**Holland's theory of vocational interest types.** Holland (1997) developed theory of vocational interests to ensure that interests were measured when searching for an appropriate career. Through development of this theory, Holland (1997) found that when people chose jobs that were congruent with interests, both satisfaction and success in the workplace increased. Six interest types were developed and viewed as generally attributable to individuals:

*Realistic.* Individuals that acquire realistic interest-types are viewed as the "doers." They are characteristically practical, scientific, and methodological. Typical occupations that fall under this facet are engineering, manufacturing, law, architecture, and agriculture.

*Investigative.* Investigative individuals are the "thinkers." They tend to observe, analyze and evaluate. In career choices, they are often identified as working in fields of science, math, technology, or social sciences.

*Artistic.* “Creators,” or those viewed as artistic, are often innovative, intuitive, and creative. Occupations that are congruent with this interest-type are in literature, music, communication, and human services.

*Social.* Social individuals are the “helpers.” They are known to enlighten, inform, guide, and train. These individuals often find work in social services, nursing, education, or sports.

*Enterprising.* Enterprising individuals are “persuaders.” They are likely to be influential, persuasive, and performing. Typically, people who are enterprisers are seen in sales, legal work, finance, business, or promotions.

*Conventional.* People who identify with this facet are “organizers.” This means that they are often data-driven, analytical, and detail-oriented. These individuals tend to find work in marketing, administration, business, or finance.

**Secondary constructs of Holland’s theory.** Holland (1997) found a positive connection between secondary constructs and career choice readiness. Secondary constructs evaluate the reliability of one’s test profile and readiness, examining the suitability of the vocation options. Holland (1997) believed that the interest-type inventories should not identify potential aspirations alone but should be explored by congruence, consistency, coherence, differentiation and elevation. Test profiles provide the user with information on secondary constructs.

*Congruence.* Degree of fit between environment and personal characteristics. Holland (1997) found that working in an environment that is congruent to personal characteristics will result in beneficial outcomes such as tenure and increased job satisfaction. Congruence is measured by similarities between expressed interests and interests reflected in the results.

*Consistency.* Similarity between first and second interest-type. Interest-types located next to one another in Holland’s hexagonal format share commonalities and alike occupations as

opposed to interest-types that are shown across from one another. If results are consistent, the first and second interest-type should be located near one another on the hexagon.

*Coherence.* Similarity between different career aspirations. Coherence is also referred to by Holland as *vocational aspiration consistency*, meaning that an individual with consistent interest-types would typically show career aspirations that are also consistent with those interest-types. Interest-types by each other share similar career possibilities.

*Differentiation.* Distinctiveness of test profile. Differentiation of profile would result in test outcomes unique to the individual and would be reflective of consistency and coherence.

*Elevation.* Overall level of interest profile having patterned values for different interest-types. It refers to the high and low values of each interest-type.

### **Career Development and The Five-Factor Model of Personality**

The Five-Factor Model, also known as the Big 5 Personality Traits, work together as customary behaviors that have a common staple and represent different dimensions of a person's personality. These traits are often used by career counselors to help clients evaluate where their attributes could be best applied in a vocational setting.

The five major traits that are explored in session include neuroticism, extraversion, openness, agreeableness and conscientiousness. Each of these traits appear on a spectrum of relatability. *Neuroticism* is on the opposite end of a spectrum from its counterpart, emotional stability. Those who are emotionally stable tend to be describable as well-adjusted, relaxed, even-tempered and self-assured. On the contrary, one that relates to the big trait of neuroticism is typically prone to emotional distress and maladaptive coping skills. These individuals are more likely to experience anxiety, depression and fear. *Extraversion* typically represents sociability and being gregarious, as opposed to relatively quiet, isolated and reserved

introversion. *Openness* is not explicitly given a counterpart, though one can assume that the other end of the spectrum would represent close-mindedness. Openness represents realms such as experience, intellect and culture. These individuals are typically curious, original, creative and innovative, while the contrary reflects conventional, unanalytical, and hold a lack of imagination. *Agreeableness* also possesses an assumable spectrum counterpart. Those who identify with the major trait are often describable as likeable, kind, nurturing cooperative and amicable. If one is not seen as agreeable, they are usually viewed as selfish, unfriendly, hostile and ego-centric. Lastly, the theory describes *conscientiousness* in individuals as dependable, persistent, conforming, and possessing impulse-control, as opposed to being disorganized, irresponsible, negligent and weak-willed. Wille and De Fruyt (2014) argued that this trait is the most important facet in relation to career development because of the responsibility and flexibility aspects of the facet. Conscientious workers are strong, dependable workers, according to the research conducted by these authors.

Wille and De Fruyt (2014) defined occupational socialization as a series of changes that occur in response to a work setting as well as the culture of the work setting. When adjusting to a social role, personality adjusts along with the experiences that come with the new role. According to the researchers, individuals are accommodating to the demands of the workplace by shifting of personality traits. Wille and De Fruyt (2014) described the process as *Gravitation Effects*. Specific traits, such as agreeableness, conscientiousness and the counterpart of neuroticism, emotional stability, accommodate and enhance workplace functioning and job achievement. Wille and De Fruyt (2014) also found that people experience an increase in conscientiousness when their social investment in the workplace rises. This is a result of

professionals developing meaningful assessments of situations, context and roles in the workplace, which is motivated by change in course toward greater functional maturity.

### **Parental Influence on Career Choice**

Interactions are viewed as being influential on identity formation and establishment of independence. These aspects are developed through self-concept and environment.

Additionally, Bregman and Killen (1999) examined how autonomy and attachment to parents during childhood affect individuality and connectedness in adulthood. Their findings concluded that positive family relationships in early life have positive outcomes during adulthood, particularly in vocational development. Parental support positively impacts self-awareness, which then develops personal preferences that are used during vocational development process. Bregman and Killen (1999) found that adolescents value parental influence and guidance in regard to career choice and development. Connectedness and attachment to parents reflect positive impacts on career development; however, parental over-involvement may hinder their positive influence.

### **Roe's Theory of Career Development**

Roe (1957) developed a career development model that is largely influenced by parent-child interaction. The model has two main parts that define parent-child relationships and categories of occupation. Roe then intersects both aspects when theorizing of how parental influence affects career development. The model begins with three categories, two subsections each, that measure parental success in needs satisfaction. Roe's model is based on Maslow's (1943) Hierarchy of Needs from parent-child relationship perspective. In result of parent-child interactions, children will grow to either orient toward, or away from, people, and if they are typically defensive in their interactions.

**Emotional concentration on child.** For typical families, parents have an average level of anxiety that comes from having the first child, and this anxiety tends to deteriorate over the course of time or when having more children. However, two extremities lie on the spectrum of emotional concentration that average anxiety serves as an equilibrium. On one end of the spectrum is *overprotection*. Some parents coddle children, encouraging dependence and restricting exploratory opportunities. These parents also tend to overly focus on the child's physical appearance and traits that they wish or expect their child to have. On the other end of the spectrum is the *overdemanding* parent. Parents that are overdemanding often place intense expectations of perfectionism and performance on the child. Roe (1957) identified milder form of this behavior as “family status ‘noblesse oblige’ pattern” typically seen in higher socioeconomic status families, meaning parents encourage the child to develop skills but the “pattern of skills is a prescribed one” (p. 214). Children found on this spectrum typically move toward others, though may be perceived as defensive if identifying with overdemanding parental interactions.

**Avoidance of child.** Two extremities fall on the spectrum of avoidance—*rejection* and *neglect*. *Rejection*, as described by Roe (1957) is characterized by below adequate care and minimal needs being met. Parents who reject their child maintain physical needs but do not aspire for any emotional connection. *Neglect*, however, includes reluctance in physical care. Children on this spectrum typically do not move toward others and are especially defensive if they have experienced emotional rejection.

**Acceptance of the child.** Contrasting with avoidance of child, parents who accept child but are not emotionally concentrated view children as productive members of the family system. These individuals do not restrict children beyond necessary and encourage independence. Rather than

the extremities of concentration or avoidance, Roe (1957) viewed accepting parents as providing a family climate. *Casual* acceptance of a child refers to a lack of interference, or permissiveness. *Loving* acceptance includes noninterference, but also engages the child to find independence and resources. Those who experienced casual acceptance typically do not move toward others, nor are they defensive; however, individuals who experienced loving acceptance move toward others and do not provide signs of being defensive.

**Eight categories of occupation.** Depending on a person's experience with the three categories and subsections described in Roe's model, he or she will develop specific values, and traits that reflect their experiences. It will affect attitudes, capacities, interests and vocational decisions. Roe (1957) examined not specific career choices made due to these perceptions, but general occupational patterns. The theory explores (a) activity and (b) level that activity is pursued. Roe (1957) described eight categories of occupation—service, business contract, organization, technology, outdoor, science, general culture, and arts and entertainment. Throughout these eight categories are six levels of proficiency—professional or managerial (levels 1 and 2); semiprofessional and small business (level 3); skilled (level 4); semiskilled (level 5); and unskilled (level 6). Although Roe does not directly integrate occupation with parental interactions, she suggests certain patterns that may arise. Roe (1957) generally attributed service, business, organization, general culture, and arts and entertainment careers to individuals who move toward other people, such as those who experienced emotional concentration and loving acceptance from parents. Those who do not move toward other people, including individuals who experienced avoidance and casual acceptance from parents, tend to choose careers in technology, outdoors or science.

## **Career, interests, and gender**

Social expectations and values influence career decision-making across both genders. In a study conducted by Hirschi and Lage (2007), female secondary students showed higher levels of vocational identity in relation to self-concept (congruent with Gottfredson's (1981) theory) and career choice readiness but showed lower rates of interest differentiation and congruence, two of Holland's (1997) secondary constructs. Females also showed interest in diverse activities, which were made evident by the self-directed search profile evaluations. However, females were less certain of specific career choice and made less career plans than male secondary students. According to Hirschi and Lage (2007), males exhibited higher levels of coherence in vocational choices. Researchers also found that male students showed congruence and differentiation, and this provided researchers with more insight on career readiness stages in male students. Males are also more likely than females to be self-limiting and show reluctance toward exploring non-traditional vocations. This is likely because males tend to internalize a strong need to achieve, and role models typically do so through traditional occupations. They are less willing to venture toward female-dominated occupations because according to Whitmarsh and Keyser-Wentworth (2012), they are viewed as being feminine, and this perception does not meet the standards of masculine-gearred career achievement. According to a study conducted by Whitmarsh and Keyser-Wentworth (2012) based on Gottfredson's (1981) Theory of Circumscription and Compromise, women are more likely to eliminate career options that do not fit (circumscription) and compromise for aspirations that are more accessible.

Gottfredson and Holland (1975) stated that when choices are grouped according to interest-types as developed by Holland, prediction of career choices are more resourceful, and the researchers found that personal attributes do influence career choice. Overall, they found that

summary codes effectively predict career options for women. The study also found that 72% of women in liberal arts college, and 62% at state university chose occupations that were classified as Social, and these career paths were typically helping or teaching professions. Similarly, Whitmarsh and Keyser-Wentworth (2012) found that women typically identify with Social, Artistic, and Conventional interest-types. These statistics seem to imply that women are more likely to choose helping occupations that also have a sociability aspect to them. A correlation with identity status may also be present for those who are likely to choose social, helping careers, which will be examined further in the literature review. Gottfredson and Holland (1975), however, did not report any significant findings on the male student counterparts regarding occupation classification; at the same time, Whitmarsh and Keyser-Wentworth (2012), through implementing Gottfredson's theory, found that men are more likely to choose Investigative and Realistic interest-type careers. The researchers attribute these findings to men and women interpreting environment, values, and core identity differently from one another.

### **Synthesis of the Literature**

Throughout the general review, the potential roles of several individual factors such as intelligence, self-esteem, and personality were explored. However, throughout the process of obtaining and synthesizing research and findings, the most abundant intersection in the literature suggested focusing on personality in relation to identity, career, and sibling configuration. Thus, personality will be in the individual factor on which the synthesis to follow will focus.

### **Relationship between Identity and Career Development**

Theorists of both identity development and career development describe the processes as on-going cycles throughout the stages. It is conceivable that career development cycles through commitment and exploration because changes in identity are so prominent and frequent.

Gottfredson and Holland (1975) argued that “what a person says he wants to do is an important piece of information,” and is the best predictor of career choice (p. 33). Their contention reinforces the concept that career decision-making is motivated by interests and personality. Tomassini (2015) also found that career development is linked to aspects of personal development, as both are constantly cycling and renewing knowledge and skills. According to Blustein, Devenis, and Kidney (2006), a possibility exists that during late adolescence, resolving career development tasks may relate to earlier identity formation. The researchers found that individuals who develop self-concept and awareness for motivation, goal creation, maintenance and attainment have a better understanding of behavior.

According to Blustein et al. (2006), ego identity status, as theorized by Marcia (1966), and occupational decision-making should typically begin when people have an understanding of their personality traits, aptitudes and abilities; knowledge of job markets and finally, the relevancy between their traits and the job market. Individual traits fit into an occupational profile, which leads to personal success and, most likely, satisfaction in career choice. Late adolescence is a time for seeking information about oneself and the surrounding environment in order to clarify self-concept and explore options of activities. Career exploration, according to Blustein et al. (2006), provided an opportunity for individuals to learn about themselves in ways that could be relevant toward other aspects of personality development since the exploration process entails investigating personal interests, skills, and personality traits that could be contributed to a career setting. Vocational choices that are congruent with aspects of identity, such as interests, skills, and personality traits, provide an opportunity of self-expression through work.

## **Identity Characteristics and Professionalism**

An average worker experiences constant changes in delegated activities and responsibilities. Tomassini (2015) described career development as being linked to *lifelong learning*. Lifelong learning is defined as principles of significant identity development due to continuous updating and renewing of knowledge, skills, and performance in workplace roles. Individuals in the workplace strive for lifelong learning, motivated by the necessary upkeep of behavioral competencies. Developmental strategies that maintain lifelong learning encourage shift in responsibility, which imply attempts at self-protection in specific relation to job search and job security.

Individuals working to manage job security or explore new vocational options show successful career development by exhibiting competency and flexibility. Tomassini (2015) emphasized three major aspects of identity that affect career development and professionalism. *Reflexivity*, or the regularity of considering self in relation to environment and social context, influences how people view themselves in relation to their surroundings is fundamental in how they behave and make decisions. Tomassini (2015) stated that autonomy and independence of judgment are two major traits that are acquired through reflexivity that are necessary in the workforce when overcoming obstacles and interacting in a professional manner. Tomassini found that those who possess reflexivity have more autonomous lifestyles and variety within decision-making abilities in career. Those with low levels of reflexivity experience more trouble in finding clear directions and expectations and have frequent failures in career-settings.

*Self-identity*, containing frequent assessments and flexibility in futuristic ideals, tends to be open to alternative possibilities and reassessments. (Tomassini, 2015). Tomassini also found that self-identity and flexible life-planning are imperative aspects of professional life because

one must be capable of plasticity in self-development in order to identify with the organization and adjust to work conditions and promotion aspirations. These individuals are more likely to adapt to changes in career life and are proficient at exploring self-presentation through various competencies and skills. Tomassini (2015) found that individuals who encompass reflexivity and self-identity are more likely to develop career paths in response to “contextual factors,” specifically the tendency to analyze contextual opportunities that relate to career aspirations and career potential.

Tomassini (2015) lastly described *resilience*, and defines the term as a make-up of personal qualities and skills that allow individuals to function successfully regardless of misfortune and interference. Resilience is crucial in regard to unexpected instances that demand immediate response. Furthermore, Tomassini attributed resiliency to *transformation learning*, or how individuals connect their own assumptions and preconceptions toward the reshaping of their behavior and perspectives. These individuals learn from past experiences in a manner that help them interact more appropriately for current and future circumstances. Similarly, Buyukgoze-Kavas (2016) found that resilience is symbolized by personality traits of hope and optimism, and encompassing these three values strengthens career adaptability.

### **Integrating Career Interest-Types, Personality, and Identity**

The exploration and commitment processes of ego development are similar to the processes of career development. For example, Blustein et al. (2006) stated that the more ego identity is forming, the more identity exploration is happening. Individuals who are developing identity are exposed to alternative worldviews during the exploration process, similarly to how individuals narrow interest-types and aspirations in vocational searches. Likewise, career exploration and identity theories interrelate, illustrating some relationships between career

interests and identity traits. De Fruyt and Mervielde (1997) found that individuals who exhibit the Five-Factor Model trait of Openness also tend to identify with Holland's interest-types artistic, social, and conventional. Individuals who are conscientious and/or neurotic share similarities of enterprising and conventional interest-types. People who are extraverted tend to be social and enterprising, equally to those who are agreeable. De Fruyt and Mervielde (1997) found that investigative and realistic interest-types show no strong relationship to facets of the Five-Factor Model.

### **Personality and Career Development**

Correspondingly, Blatny et al. (2015) found that overall, individuals who show higher levels of conscientiousness, agreeableness and extraversion tend to be more decided about career choices than their counterparts. Furthermore, those who are emotionally stable (opposite of neurotic) and extraverted tend to show highest levels of job satisfaction. Emotionally stable and conscientious individuals report being the most motivated due to self-regulatory processes, goal-setting, and self-efficacy. These individuals also typically earn higher status and income. Finally, conscientious individuals tend to have long-term vocational satisfaction.

Though the literature does not yet provide an empirical basis for claims about how identity, personality, and career interests align, a synthesis of the literature reviewed earlier does allow for some of these dots to be connected conceptually. It is likely that individuals described by Marcia (1966) as in the moratorium ego status and those Crocetti's (2017) would describe as in reconsideration of commitment are agreeable and extraverted. Although Crocetti does not explicitly say that people in reconsideration are neurotic, they are described in the literature as going through maladjustment and distress. Marcia describes the experience as an identity crisis. The Five-Factor Model, however, described neuroticism as possessing distress and maladaptive

coping skills. From this, it might therefore be inferred that people who are in moratorium and reconsidering commitments are also experiencing neuroticism, or lack of emotional stability. Similarly, Berzonsky (1992) describes avoidant orientation, affiliated with identity diffusion, as utilizing maladaptive and debilitating coping strategies. Therefore, one can also infer that those with identity diffusion ego status are also likely to be more neurotic and emotionally unstable. Table 2 lays out a proposed alignment of the reviewed identity models, Five Factor Model of personality, and Holland's (1997) vocational interest types.

Table 2  
*Synthesis of Identity, Personality, and Career Theories*

<b>Berzonsky's Identity Styles</b>	<b>Marcia's Ego Statures</b>	<b>Crocetti's Three Factor Model</b>	<b>Five Factor Model</b>	<b>Holland's Interest-Type</b>
Information Orientation	Identity Achievement	Commitment	Emotionally Stable Extraverted	A, I  S, E
Information Orientation	Moratorium	Reconsideration	Agreeable Extraverted <i>Neurotic</i>	S, E S, E E, C
Normative Orientation	Foreclosure	Commitment	Emotionally Stable Extraverted	A, I  S, E
Avoidant Orientation	Diffusion	_____	<i>Neurotic</i>	<i>E, C</i>

*Note.* A = Artistic, C = Conventional, E = Enterprising, I = Investigative, R = Realistic, S = Social

## **Connecting Parental Influence on Identity and Career Development**

Waterman (1982) and Roe (1957) identified similar patterns in career choices and parenting styles through different lenses that are equally informative toward the present integration of the literature. Waterman (1982) attributed identity diffusion to parent-to-child neglect, rejection, and permissiveness, which Roe (1957) would describe as avoidance of child (neglect and rejection) and casual acceptance (permissiveness being a characteristic). Roe (1957) found that these individuals do not move toward other people, and they tend to find careers in technology, outdoors and science.

Waterman (1982) found that individuals who experience identity foreclosure often do so out of respect for parents, regardless of strict parenting styles. Roe (1957) may attribute the strict parenting style as being overprotective. Waterman (1982) and Roe (1957) alike agreed that loving acceptance from the parent to the child results in identity achievement. Individuals experiencing foreclosure and achievement move toward others, finding work in service, business, organization, culture, or arts and entertainment (Roe, 1957).

## **Career, Identity, and Gender**

Waterman (1982) found that females are more likely to score higher on moratorium and identity achievement ego statuses than their male counterparts, who are more likely to experience identity diffusion. The study also identified that women show more interest in writing poetry, which is congruent with Holland's interest-type, artistic, and choose helping and/or teaching careers. Although these findings may be outdated, they are reinforced by the research of Whitmarsh and Keyser-Wentworth (2012), who also found that women are less self-limiting than males in occupational settings and typically identify with social, artistic, and conventional interest-types. Waterman (1982) justified the interest-type in relation to identity achievement

because those who are experiencing identity achievement have an improved sense of self and introspectiveness. If individuals with identity achievement value and show interest toward introspectiveness, one may be able to assume that identity achievement individuals share Holland's interest-type of artistic. Similarly, if women are more likely to take on professional helping and teaching roles, they may typically identify with Holland's social interest-type. As Table 2 represents, those who establish identity achievement tend to be emotionally stable and extraverted. When comparing these attributes to the findings of De Fruyt and Mervielde (1997), identity achieved individuals would be likely to choose vocations that are artistic, social, investigative, and enterprising; and individuals in moratorium would be more likely to be social, enterprising, and conventional. This synthesis of these theories and findings would thus suggest that females overall are more likely to choose careers that are artistic (if associated with identity achievement), social, and enterprising.

Waterman (1982) found substantially less in regard to males as opposed to their counterparts; however, men were found to experience identity diffusion. Diffusion, portraying similar qualities to neuroticism, are more likely to choose careers that are enterprising and conventional, though Whitmarsh and Keyser-Wentworth (2012) found men to typically choose careers that are investigative and realistic.

### **Integrating Sibling Configuration, Identity and Career Development**

In review of the literature surrounding the topics of sibling configuration, identity and career development, connections and integrations between these three facets seem to emerge. Mendelson and Gottlieb (1994), Gilbert (2006) and Bradley (1982) found that firstborns typically have high self-esteems, view themselves as leaders and protectors, feel pressure to succeed, and struggle with receiving criticism. Middle children typically have lower self-

esteems, are autonomous, inventive, independent and rebellious, and possess positive coping skills and relaxed temperament. The researchers found that lastborn children are typically more creative, manipulative, empathic and unique limit-testers, who also possess positive coping skills and relaxed temperament.

Gilbert (2006) and Collins (2006) describe each sibling rank with facets from the career development theory, the Five-Factor Model. Both researchers describe the firstborn siblings as being conscientious, introverted, closed-minded (opposite of openness), and add inferences of neuroticism. Middle children and youngest children share similar overall qualities; however, Gilbert (2006) and Collins (2006) alike differentiate them as middle children being agreeable and emotionally stable, whereas lastborn children are extraverted and open with low levels of conscientiousness. Understanding the potential connections between sibling configuration and identity, personality, and career theories can be assisted by considering how birth order aligns with these theories as synthesized in Table 3.

Table 3

*Connections among birth order, identity, personality and career theories*

Sibling Birth Rank	Marcia Ego Status	Five-Factor Model	Holland Interest-Type
Firstborn Sibling	<i>Identity Foreclosure*</i>	Conscientious Introversion Closed-Minded	Conventional Enterprising Investigative Realistic
Younger Sibling	Identity Achievement	Emotionally Stable Agreeableness Extraversion Openness	Social Artistic Investigative Enterprising

*Note.* \*No determination was found regarding firstborn ego status in synthesis of literature

**Sibling configuration and identity.** Reviewing what the literature explains about sibling traits is imperative in order to synthesize the findings and make inferences across theories. In particular to identity, one can make interpretations in regard to Marcia's (1966) ego identity statuses based on what we know about sibling birth order characteristics.

Firstborns are typically recognized for higher achievement since they receive the highest level of expectations and reinforcement from parents out of all the siblings (Kluger, 2006). They tend to give into pressure to succeed from parents and often do not develop coping skills for criticism, which tends to occur when one is exploring alternative identities. Therefore, one may assume that firstborn siblings are more likely than later-born children to fall into identity foreclosure.

Middle children and lastborn children typically share general characteristics, so for the remainder of the synthetic review, they will be referred to holistically as "younger siblings" or "younger children." Overall, younger siblings have been identified by literature as being autonomous, creative, inventive, and possessing coping skills and relaxed temperament. These individuals are open-minded and have a wide variety of interests, and therefore categorize as possessing identity achievement above all other ego statuses.

### **Firstborn Traits and Career**

Firstborn siblings have been identified by Gilbert (2006) and Collins (2006) as conscientious, introverted, and closed-minded in regard to the Five Factor Model. In addition, Collins (2006) and Diaz (2013) alike found that firstborns are likely to find jobs in law, medicine, business and math; therefore, these individuals typically fall under Holland's following interest-types—*conventional* (math and business), *enterprising* (finance, legal, business), *investigative* (science and math) and *realistic* (science and law).

The characteristics of firstborns are congruent with those of foreclosure but contradict identifiers of extraversion and emotional stability. However, extraversion and emotional stability are affiliated with artistic, investigative, social and enterprising interest-types. Artistic and social, the primary interest-types associated with extraversion and emotional stability, according to Holland (1997), oppose conventional and realistic interest-types, which are congruent with the facets associated with firstborns (introversion and inferences of neuroticism).

### **Younger Sibling Traits and Career**

Gilbert (2006) and Collins (2006) identified youngest siblings as emotionally stable, agreeable, extraverted, and open-minded in relation to the Five Factor Model. In addition, Collins (2006) and Diaz (2013) found that younger individuals typically excel in jobs that involve social justice, advocacy, mediation, teaching, and arts. These careers relate to Holland's interest-types as follows—*social* (social services and teaching), *artistic* (human services, communication, art, music and literature), *investigative* (social sciences) and *enterprising* (legalities involved in social justice).

Table 3 connects identity achievement to emotional stability and extraversion, which are both affiliated with younger siblings in this synthetic review. Identity achievement, emotional stability and extraversion are also interrelated with these same four interest-types (social, artistic, investigative, and enterprising).

**Parental influence on identity and career interests.** Kluger (2006) found that parents tend to favor the oldest child because evolution tells them that this child is the most valuable and worthy of parents' time and this is the same child, according to Hester, Osborne and Nguyen (1992), that receive the most individualized time with parents due to being alive for some time before following siblings came along. Mendelson and Gottlieb (1994) also found that parenting style

fluctuates among child birth order. Specifically, firstborn children receive the highest level of expectation and the most reinforcement, and emphasis is often placed on academic achievement. Middle children receive generally high expectations with little reinforcement, and youngest children receive generally little expectation and high reinforcement. In synthesizing these findings across research studies, one can infer that the possibility of parents subconsciously viewing the eldest child as being more valuable is attributed to the parents also putting the highest expectations on this child. This parenting style causes the firstborn child to develop a strong sense of responsibility and need for success, so they are more likely to appease parents by focusing on academics and career success. Reviewing the careers that these individuals are likely to aspire (law, business, math, medicine), these are often high status and high salary occupational fields.

Since younger siblings are striving for unique significance from their eldest counterpart, regardless of little differentiation in intelligence, these siblings must search elsewhere for success and significance since the eldest has already begun mastering academic achievement. Younger siblings then, presumably, turn to arts, humanities, helper and communication fields, which is reflected in younger sibling's Holland interest-types. The nature of the interactions between parents and children further influence the child's vocational journey. Roe (1957) and Waterman (1982) alike found that avoidance of child and casual acceptance lead to identity diffusion, while overprotection and loving acceptance tend to steer the child toward identity foreclosure or identity achievement. One can infer that a combination of loving acceptance from parents and successful strive for significance create feelings of identity achievement in children.

**Role of gender in identity and career development.** As discovered by Whitmarsh and Keyser-Wentworth (2012), men are more likely to choose careers related to investigative and realistic

interest-types than female counterparts. These interest-types are described by Holland (1997) as being practical and analytical. Congruent with findings from Crocetti (2017) that individuals strive to reach full potential, Adler (1964) found that individuals search for a meaningful sense of direction. McLean and Breen (2009) found that males, specifically, develop positive well-being through “redemptive sequencing.” Though men are more often associated with identity diffusion, according to Waterman (1982) than their female counterparts, redemption of identity could be attributed to work success. One can infer that men, who favor practicality and analyzation in accordance to Holland (1997), would search for occupation in investigative (analytical) and realistic (problem-solving) fields.

Redemption, in this sense, appears to be of high value for males, whereas females are more likely to search for occupations within a wider variety of interests and personality traits. Coincidentally to how the genders differ in career development, the presence of both genders also have influence on identity in females. According to the study conducted by Todd and Steele (1993), females with an older brother reported lower levels of perceived self-power, whereas females with younger brothers reported higher perception of self-power. This could be attributed to the differences in traditional parenting across genders. Parents are typically more affectionate with females, and as described by Diaz (2013), youngest siblings tend to be coddled more and therefore develop stronger senses of dependence and helplessness. One can infer that older female siblings do not receive the same level of coddling as do the younger siblings, who are likely provided more affection than the eldest counterpart due to the difference in gender.

### **Limitations of the Study**

The main limitation to the review includes that not all topics of individual factors were covered in their entirety and more relevant research might be remaining to be covered.

Throughout the synthesizing process, the broad range of individual factors needed to be narrowed to focus mainly personality due to the fact that other factors initially researched, such as intelligence and self-esteem, did not have as much surrounding literature that allowed for meaningful integration.

Another limitation is the lack of exploration of multiple intelligences. The review examines the variation in logistic and linguistic ability across siblings; however, the review does not include variations in aspects regarding nature, music, existential, special, intrapersonal, interpersonal or kinesthetic intelligence. The synthetic review also examines differences in sibling significance and therefore does not apply to settings that include opportunities such as family businesses where siblings take over a parent's company or organization.

### **Suggestions for Future Researchers**

This synthetic literature review compiles a variety of theories and sources that reference sibling configuration, identity development and career development. The review provides future researchers with a strong base for future empirical study. For example, quantitative measures of identity, personality, and career interests could be administered via a survey to adolescents that fall in different places in the birth order, and their scores could be compared to see what differences there are. Another approach might involve a qualitative research study, where researchers would have the opportunity to conduct focus groups to obtain deeper and richer information, insights, experiences and vocations from individuals who identify with a sibling configuration.

Furthermore, future research should include the examination of exceptions to the typical family configuration, which is important due to shifts in family structure since Adler (1964) studied sibling configurations; these might include, but are not limited to, families experiencing

divorce, families with integrated stepfamilies, adoptions, twins, only children, single parent families, families with two working parents, and “parentified” children.

This synthetic literature review is limited to the examination of one traditional family structure, and many other configurations could and should be further explored and researched. This literature review generally reviews traditional family structures of Western cultures and does not explore the family norms of Eastern-based families. Future researchers should examine norms and traditions through an integrated, cross-cultural perspective.

In addition, future research should explore the potential roles of intelligence and self-esteem, as well as any other individual factors that may relate to the interconnections in this review. Exploring the roles of other individual factors further could provide clarity on their influence and connections toward the main variables—identity, career development, and sibling configuration. Utilizing empirical research to expand on previous findings would also improve the quality of the thesis. Furthermore,.

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