The Role of Adoptive Identity in Career Development of College and Non-College Individuals

Yesel Yoon

University of Massachusetts Amherst, yesel@psych.umass.edu

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The Role of Adoptive Identity in Career Development of College and Non-College Individuals

A Dissertation Presented

by

YESEL YOON

Submitted to the Graduate School of the University of Massachusetts Amherst in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

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Clinical Psychology
The Role of Adoptive Identity in Career Development of College and Non-College Individuals

A Dissertation Presented

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YESEL YOON

Approved as to style and content by:

___________________________________________________________
David G. Scherer, Chair

___________________________________________________________
Harold D. Grotevant, Member

___________________________________________________________
Nilanjana Dasgupta, Member

___________________________________________________________
Ryan Wells, Member

___________________________________________________________
Harold D. Grotevant, Department Head
Department of Psychological and Brain Sciences
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I am grateful to my family for forging a path to make it possible not only to complete my graduate career, but also be the woman, daughter, and sister I am today. A special thank you to my partner and best friend whose encouragement and acts of love helped sustain me through to the end.
ABSTRACT

THE ROLE OF ADOPTIVE IDENTITY IN CAREER DEVELOPMENT OF COLLEGE AND NON-COLLEGE INDIVIDUALS

SEPTEMBER 2016

YESEL YOON, B.A., UNIVERSITY OF MARYLAND COLLEGE PARK
M.S., UNIVERSITY OF MASSACHUSETTS AMHERST
PH.D., UNIVERSITY OF MASSACHUSETTS AMHERST

Directed by: Professor David G. Scherer

Identity development is a particularly salient developmental task that begins to take form during adolescence, and consolidation of multiple domains of identity is necessary for achieving successful outcomes in adulthood (Erikson, 1968). The purpose of this study was to examine the role of an ascribed adoptive identity on the individualization of one’s chosen career identity. Adoptive identity was examined using both individual and family-level factors, and career identity was measured across adolescence, emerging adulthood, and adulthood. The present study used a sub-sample of adoptees, adoptive mothers, and adoptive fathers from an ongoing longitudinal research study, the Minnesota/Texas Adoption Research Program (MTARP; Grotevant, McRoy, Wrobel, & Ayers-Lopez, 2013). All adoptions were domestic, same-race, and none were special needs. There were four waves of data collected since the mid-1980s through 2015, and present study data were used from three different time points, Waves 2, 3, and 4, collected during 1996-2001, 2005-2008, and 2012-2014, respectively. The adoptive families were recruited through 35 U.S. adoption agencies, and the target adopted child was adopted before his or her first birthday. To address gaps in the literature on emerging
adults not enrolled in post-secondary education, this study included both college and non-college adopted individuals. Latent factor scores were used in regression models, to test mediation and conditional process models of career development. Findings indicated that years of parental education and adolescent age were positively associated with adolescent career exploration. Career exploration during adolescence was negatively related to adult career achievement, whereas career adaptability during emerging adulthood was positively related to adult career achievement. Career exploration during adolescence was not related to career adaptability during emerging adulthood. The relationships found between adolescent career exploration, emerging adult career adaptability, and career achievement in adulthood, were not different by post-secondary enrollment. Based on the study findings, increased emphasis on career adaptability behaviors during emerging adulthood may help individuals benefit later in adulthood in terms of their career achievement outcomes. Additional analyses were conducted using a different data reduction technique and less data imputation. These analyses showed very similar findings.
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CHAPTER 1

INTRODUCTION

Identity development is an iterative process, during which a series of tasks or challenges are confronted along the way to enable individuals to construct a sense of who they are. Erikson’s classic psychosocial stage theory includes identity formation and consolidation as one of the primary developmental tasks to take place during adolescence (Erikson, 1968). The process of building a personal identity during adolescence includes identifying career goals, as well other aspects of self. Other researchers have since operationalized Erikson’s theory, moving beyond his stages of identity. For example, Marcia’s research on identity statuses assumes the transition from late adolescence into emerging adulthood should be characterized by greater exploration and commitment (Marcia, 1993; Waterman & Archer, 1990).

Identity researchers have also expanded, both theoretically and empirically, upon the notion that identity is multidimensional in nature. There are various domains or aspects that are explored and integrated into one’s identity (Grotevant, 1992). An appropriate model to use as a foundation to examine identity is a process model of identity formation because it includes a life-span approach, an individual’s contexts, and various domains that inform one’s identity (Grotevant, 1987).

One way of categorizing domains of identity is by differentiating those aspects that are assigned to or chosen by an individual (Grotevant, 1992). Adoptive identity, along with racial or ethnic identity, is an example of an assigned identity, one in which a child is either born with or is ascribed at a young age without a choice. Career identity, on the other hand, is an example of a chosen identity, and individuals can create their
own career identity through a series of self-determined behaviors and decisions. One’s ascribed and chosen identities may potentially influence each other (Grotevant, 1992, 1997), however, few studies have explicitly examined the intersection of multiple identity domains. While existing research has given attention to issues surrounding career identity development and how adolescents and emerging adults come to determine prospective career paths for themselves, this topic has not been tied to adoption research. The present study uses data from adoptive family members who were recruited as a part of a longitudinal study of adopted children and the adoptive kinship network (adoptive parents, birthmothers, siblings), affording us the opportunity to examine the question: how might one’s assigned adoptive identity potentially affect the process of developing a chosen career identity?

The issue of how ascribed and chosen domains of identity are related to one another is particularly important within the context of various societal and economic changes that have resulted in more variability in how individuals assume adult roles and identities. Due to economic shifts and downturns in the past few decades, what may have previously been a straight-forward path from secondary education to post-secondary education or work, has changed to a series of paths. Now, contemporary emerging adults between the ages of 18 to 29 years are faced with choices of part-time or full-time education or work, a combination of both, or neither (Shanahan, 2000). Prior to 2000, adolescent work was in higher demand, and adolescents and emerging adults had a wider variety of choices of short-term and long-term work (Mortimer, 2012). However, after the economic crisis over the better part of the past decade, there has been a rise in the unemployment rate (U.S. Department of Labor Bureau of Labor Statistics, 2014), and a
steep rise in the cost of post-secondary education (U.S. Department of Education, 2012). The United States, compared to other industrialized societies such as Germany or Denmark, has less structure connecting educational and occupational systems (Shanahan, 2000).

Given the challenging economic circumstances and the lack of institutional support for transitioning youth into work in the United States, emerging adults must assert a major active role in the process of creating one’s own life path through a series of decisions and commitments, also known as individualization (Schwartz, Côté, & Arnett, 2005). More “active individualization”, characterized by more self-direction and agency, is predictive of achieved identity statuses and successful career outcomes (Evans & Heinz, 1994; Schwartz et al., 2005). In other words, if individuals are actively engaging in this process of career development over time, and can be more adaptable in the face of lesser institutional support or occupational prospects, it is more likely their career outcomes will be more favorable. Coupled with the specific interest in examining the role of adoptive identity on career exploration, another aim of this study is to examine how career identity unfolds over time, and what career-related behaviors can predict better career outcomes in adulthood.

One of the current limitations in research on identity development is that less is known about whether identity development processes, such as career identity, varies by context. Emerging adulthood is described as an “institutionalized moratorium” when individuals are provided with the space to explore their identity (Côté, 2006). College is one example of a context that supports the exploration of career identity by way of choosing classes and majors based on a student’s interests (Côté, 2006). Studies that have
examined predictors of successful post-secondary education transitions have been limited predominantly to samples of emerging adults enrolled in college (Schwartz et al., 2005). However, according to the National Center for Education Statistics (U.S. Department of Education. Institute of Education Sciences, , 2013), 66% of recent high school graduates enrolled in 2-year or 4-year colleges, and only 37% of high school graduates enrolled in 4-year colleges. This leaves a significant number of emerging adults, or the “forgotten half” (Halperin, 2001), who are pursuing alternative career paths, and this group warrants a closer look at how similar or different they are from their college-enrolled counterparts. This study aims to address this empirical gap in the literature, and aid in the understanding of how individualization of career identity may differ for emerging adults who do and do not enroll in post-secondary education, and how this fares for a group of individuals who have ascribed adoptive identities.

Chapter 2 provides an overview of the theoretical foundations that underpin the specific research questions, including Erikson’s lifespan theory of identity development (Erikson, 1968), Super’s life-span theory of career development (Super, 1980; Super, Savickas, & Super, 1996), and Côté’s concept of individualization that emerges from a developmental social-psychological perspective (Côté, 1996; 2002). Chapter 3 reviews the existing literature related to adoptive identity development, career development, and what is known regarding career identity development in emerging adults, including both those enrolled and not enrolled in post-secondary education. The research questions and specific hypotheses will also be outlined in Chapter 3. Chapter 4 describes the method of the study, including the study sample, measures, and procedures. Chapter 5 states the results, which are then discussed in depth in Chapter 6 along with implications.
CHAPTER 2
THEORETICAL FOUNDATIONS

There are a number of important theoretical perspectives that bear on how individuals engage broadly in identity development, as well as how they engage in more specific career developmental processes. The following chapter is a brief synopsis of these theories and how they pertain to the study research questions.

A. Emerging Adulthood as a Psychosocial Moratorium

Emerging adults between 18 to the mid to late 20s years old are in a life phase between adolescence and adulthood characterized as a time of instability, possibilities, identity exploration, feeling in-between, and being self-focused (Arnett, 2000). Most are engaged in some form of exploration, but have not yet made the next step towards committing to a particular career, relationship, geographical location, and other features of adult life (Côté, 2000, 2002). Accordingly, emerging adulthood is a time of “psychosocial moratorium”, a time when individuals are free to explore their identities without making permanent commitments (Côté, 2002; Erikson, 1968; Schwartz, Côté, & Arnett, 2005). Various areas of identity can be in this state of moratorium without clear commitments but with varying levels of exploration. Of interest here, is how adoptive identity-related issues and resources may potentially impact one’s level of career exploration.

B. Super’s Theory of Career Development

Both theories of career development and overall identity development highlight the importance of exploration and commitment that helps in the integration process between a person’s self-concept and social context (Marcia 1966; Savickas, 2002). The
underlying premise of Super’s life-span, life-course career theory (Super, Savickas, & Super, 1996), which was later updated by Savickas (2002, 2005), is that career development is a process that occurs within a particular social context and this process consists of several decisions that lead to a representation of one’s self-concept (Savickas, 2002). Super’s model is represented by five different life stages, and he proposed that each stage has a different goal, and as individuals move from one stage to another, a set of developmental tasks must be mastered within each of these stages to master subsequent stages. The five different life stages or “maxicycles” in Super’s model of career development include: Growth (ages 4 to 13), Exploration (ages 14 to 24), Establishment (ages 25 to 44), Maintenance or Management (ages 45 to 65), and Disengagement (over age 65). There is flexibility in the timing of these stages and the manner in which an individual progresses through them, but generally, the stages are linear and relatively predictable (Swanson & Fouad, 2010). The stages most relevant to this study are Exploration and Establishment (for a thorough review of each stage, see Super, Savickas, & Super, 1996). The stage of Exploration typically occurs during adolescence, and involves both explorations in depth and in breadth. This is the beginning of forming ideas about where one may fit with careers, and the beginning of acquiring information about potential occupations and career paths. Exploration in breadth occurs as individuals may accrue various work, training, and educational experiences. Exploration in depth occurs when individuals explore self-identity and career identity in a more thoughtful manner, to construct a story of how one fits in society. Exploration in breadth and depth ultimately should culminate in taking action steps towards preparing for an occupation that coordinates well with one’s sense of self.
This period typically involves the school-to-work transition, and is the period of developing skills, perhaps by switching from one job to another to find the best fit. The Establishment stage is when individuals try to stabilize their career choice and manifest their self-identity into their occupational role. In this study, these theoretical stages, exploration and establishment, will be examined across different points in adoptees’ lives.

C. Côté’s Concept of Individualization During Emerging Adulthood

Emerging adults have the important task of exploring and making commitments along various domains of their life (Arnett, 1994), and there are fewer structural supports in place to help emerging adults with the transition to adulthood (Côté & Schwartz, 2002). Thus, emerging adults are responsible for creating their own life course, or individualizing their life path. The degree of agency or self-direction that one has over this individualization process differentiates individuals into two distinct paths: default and developmental individualization (Côté, 1997; Schwartz, Côté, & Arnett, 2005). Default individualization is a path characterized by individuals who do not exert as much control or agency over the process and take a passive approach to developing their adult identity and life path. Developmental individualization is a path characterized by individuals who possess a higher degree of agency, pursue opportunities to improve themselves, explore alternatives, and adopt a more active approach to this process. Those who are actively engaging in the exploration process earlier in their life, and adopt a developmental individualization approach may possess greater readiness to take on the developmental tasks at each stage of their life as it pertains to career decisions and behaviors. Taken together, Super’s career developmental model and the paths of
individualization support the notion that more active engagement in the career individualization process, and the more external and internal resources available for identity exploration, can lead to better outcomes.

The current research study has three specific aims. First, to address the limitation in research on the role of ascribed and chosen domains of identity, the first question focuses on how ascribed adoptive identity and the adoptive family’s resources are related to exploration of a chosen career identity during adolescence. Second, based on Super’s life-course model of career development, a longitudinal approach is taken to examine how career adaptability during emerging adulthood, is a mediator of adolescent career exploration, and career achievement later in adulthood. Third, to address the limited empirical study of emerging adults in non-post-secondary educational settings, this study also tests whether post-secondary education enrollment is a moderator of the aforementioned career development process from adolescence into adulthood.
CHAPTER 3

LITERATURE REVIEW AND RESEARCH QUESTIONS

A. Adoptive Identity and Career Identity Development

Developing a sense of self as an adopted person is important for adoptee’s identity development (Grotevant, 1997; Grotevant & Korff, 2011). This process is multifaceted and complex and it requires considerable emotional engagement, exploration, and reflection on the part of the adopted individual (Dunbar, 2003). Being adopted as a child may influence emerging adult career identity in a number of ways. First, the adolescent may have internal focus and preoccupation with one’s own adoptive history that can hinder or support the progression towards career-related issues. One’s focus on adoptive identity may detract from the psychological and emotional resources available to engage in career exploration, and in turn, lead to poorer career achievement outcomes. Based on this explanation, having somewhat of a more fractured or compartmentalized identity could potentially play a detrimental role. Those who are exploring their adoptive identity may have a career identity characterized by diffusion, with lack of exploration and commitment in this dimension (Marcia, 1966). Hypothetically, a higher focus on adoptive identity may be related to less career exploration.

On the other hand, adopted individuals may view these components of adoptive identity and career identity not as separate compartmentalized domains, but may treat these as interrelated and integrated. This perspective is consistent with Erikson’s lifespan theory of identity development and Erikson’s belief that identity integration is an important and necessary developmental task (Erikson, 1968). Depending on the degree to
which an individual is able to use one aspect of his or her identity to inform the growth or development of another, we would expect to see better outcomes. One’s adoptive identity may, in fact, inform one’s career identity and the kind of exploration that takes place simultaneously. Hypothetically, greater focus on ascribed adoptive identity, may be related to the active engagement in the individualization of a chosen career path, and hence, greater career exploration.

Limited research exists that directly examines the relationship between adoption and career identity. Moyer and Juang (2011) used grounded theory qualitative methods to identify how adopted emerging adults, varying in educational and work-status (i.e., full time, part-time, unemployed), related their adoption to their career. Out of ten participants, only four described a connection between their adoption and career, and two themes emerged. One, “desire to give back”, was characterized by adoptive emerging adults desire to use their current and future career in areas such as social work and psychology to help other adoptive youth and families in similar situations. Second, the theme of the “quest for knowledge” arose from participants who described the desire to learn more about the adoption process and experience through their future careers. Despite the small sample size, the information that emerged from the adopted emerging adults who endorsed a connection between adoption and career supports the notion that multiple facets of identity can indeed influence and inform the other. This is the only study to date that has directly examined adoption and career identities, and thus, highlights the need for further examination of these domains.

Syed (2010) also examined the influence of an ascribed identity (ethnicity) on a chosen identity (academic major). In a mixed-method study, Syed examined how college
students’ ethnic identity was integrated into their academic identities, by way of pursuing certain academic majors (humanities or science). Syed found different patterns for how college students made choices about their majors, and whether and how their ethnic identity was associated with these choices. College students varied by the level of ethnic “centrality” and awareness they had, with some who entered college with high awareness of their ethnic identity, or those with low awareness. Some students also were able to acknowledge how their ethnic identities played an integral role in their choice of major. Students varied in terms of the degree of awareness of their ethnic identities, but by the end of college, they all made connections between their ethnicities and their majors. There was also a small subset of students who had high awareness of their ethnicity, but this awareness was compartmentalized from their major. In this study, the students who took this parallel or dissociated approach did not address any feeling of distress or conflict, and rather, found this to be adaptive to manage their multiple identities (Syed, 2010). A possible implication of this study is that people take different approaches to integrating or compartmentalizing their multiple domains of identity, and this can have implications for the developmental tasks they accomplish, such as choosing a career.

The present study examines two individual factors of adoptive identity exploration: preoccupation with one’s adoptive history, and satisfaction with contact with birth family. The following section reviews literature that pertains to these issues, respectively.

1. Preoccupation With Adoption History and Identity Development

One of the challenges of one’s adoptive identity is “coming to terms” with his/her adoption, and being able to answer questions such as, “Who am I as an adopted person?”
and exploring the meaning behind the answers to these questions. Adopted individuals are responsible for constructing their own adoptive identity and bringing together answered and unanswered questions about their adoption and their birth relatives. In a study that surveyed adolescent adoptees about how they experienced their adoptive identity, a substantial number of adolescents endorsed statements such as “adoption is a big part of how I think about myself”, and found these issues to be on their mind frequently (Benson, Sharma, & Roehlkepartain, 1994a). The degree to which one is interested in exploring aspects of adoptive identity can range on a continuum from little to no interest to preoccupation (Grotevant, Dunbar, Kohler, & Esau, 2000). Adolescent adoptees with higher scores on salience of adoptive identity had higher preoccupation scores (Dunbar, 2003). Also, those reporting higher levels of preoccupation with their adoption also reported significantly more feelings of alienation from their adoptive mothers and fathers and lower levels of trust (Kohler, Grotevant, & McRoy, 2002). When adolescent adoptees are more preoccupied with their adoption and are more engaged in this aspect of “identity work”, this may lead to emotional distance from their adoptive family members, reflected in greater levels of alienation and mistrust. These findings suggest that the adolescents who were more preoccupied with their adoption may have been engaged in more intense reflection and exploration of their adoptive identity, requiring them to withdraw from their adoptive parents. This explanation may be extended to the role of adoptive identity exploration and career identity development in that, greater preoccupation with one’s adoption may require one to “withdraw” and take away from the resources required for exploration and growth in one’s career development. While adolescents are making sense of their adoptive identity, this may
become a much more important domain compared to other aspects of identity (e.g., career identity) requiring these domains to take a “back seat” to the resolution of adoptive identity until they can be further explored and developed (Grotevant et al., 2000).

2. Level of Satisfaction With Contact With Birth Relatives

While there are a diversity of characteristics and circumstances under which adoption can take place, an underlying trend that has emerged relatively recently is the movement to open adoption, which involves contact and communication between the child’s adoptive family and birth family (Grotevant & Von Korff, 2011). Open adoptions vary in the degree of contact and information shared between the adopted individual, adoptive family members, and birth relatives. The present study examines a sample of U.S. domestic, non-transracial, infant adoptions with varying levels of contact arrangements. Studies have examined structural variables of openness such as the amount of contact between family members, or the degree of open communication about one’s adoption in the family and how this is related to adoptive identity (Dunbar, 2003; Grotevant, Reuter, Von Korff, & Gonzalez, 2011; Von Korff & Grotevant, 2011).

Empirically, what appears to be more informative about adoptive individuals’ outcomes is the adoptee’s endorsement of the level of satisfaction he/she has with the birth family, not necessarily the arrangement or amount of contact between family members (Berge, Mendenhall, Wrobel, Grotevant, & McRoy, 2006; Brodzinsky, 2006; Grotevant et al., 2011; Neil, 2009).

Satisfaction with contact has been found to predict psychosocial outcomes such as increased identity formation (Berge et al., 2006). It is possible that satisfaction with contact can extend to other psychosocial outcomes, such as greater career identity.
development. Dunbar (2003) examined the relationship between level of satisfaction with openness with types of adoptive identity. There was a weak relation between the degree of openness and the adoptive identity type, such that those with less contact or information were related to less exploration and salience of adoptive identity. Those who had negative feelings about their adoption, and were characterized as having an unsettled adoptive identity, were least satisfied with contact with their birth father. Those who had limited exploration or very little salience of one’s adoptive identity had the most neutral feelings about the openness with birth father (Dunbar, 2003). In thinking about why this pattern may have emerged, Dunbar suggested that having restrictions on contact and information about one’s adoption history may subsequently restrict the level of exploration of one’s adoptive identity altogether. In a similar vein, those who are less satisfied about the level of openness with birth relatives may take away from their ability to focus on other identity domains, such as their exploration of their educational and career goals. In Berge and colleagues’ qualitative study of adolescents’ experiences of openness arrangements, those who were satisfied felt more positively about their birth mother and more frequently endorsed that contact contributed to their identity formation (Berge et al., 2006). Overall, the level of satisfaction with contact between the adoptee and birth relatives appears to be related to more mature adoptive identity formation, and this may translate into other domains of identity formation. Those who are more satisfied with the level of openness or contact may also feel more satisfied in general with different aspects of their adoptive identity, allowing them to have the psychological resources to attend to other issues of their identity, such as their career identity.

Therefore, it is hypothesized that higher level of satisfaction with the level of openness
with birth family members will be related to more career exploration.

**B. Adoptive Family Context and Career Identity Development**

While most identity research has been more individualistic in nature, there have been advances in the empirical research on identity and career development to reflect the interaction of individual and social contextual factors (Zimmer-Gembeck & Mortimer, 2006). Individuals develop their career identity and goals within the larger context of various influences including the family of origin, school, and peers (Grotevant, 1987; Grotevant & Cooper, 1986). Since adoption affects multiple members of the family system, or adoptive kinship network, the role of the adoptive family context is included to examine how external resources and sources of psychological support within the adoptive family context can also influence adoptive adolescents’ identity development. The following section will discuss the different indicators of the adoptive family context that are included in this study.

1. **Adoptive Family Resources**

From a sociological perspective, research has shown that a family with greater financial and social capital resources can provide their children with greater access to better education, resources, activities, and tools to achieve more educational and job opportunities (Blustein et al., 2002; Mortimer, 2012; Staff & Mortimer, 2008). For example, college students who have more privilege in terms of socioeconomic resources, are more able to increase their identity capital by knowing how to navigate social connections, better integrate into the community, and make connections with potential work contacts, compared to those who are less advantaged and are prone to “floundering” (Mortimer, 2012; Staff & Mortimer, 2008). Identity capital resources from one’s family
of origin can be in the form of family education attainment and/or occupational status. Socioeconomic status (SES) is one of the key indicators of family capital resources that is most widely used and is empirically measured in various ways, with parental education, income, and occupation as the three key dimensions of socioeconomic status (Sirin, 2005; Wells & Lynch, 2012). Parental education is one of the most stable measures of SES, as this remains stable over time, and is highly correlated to income. For the scope of this study, parental education is the focal indicator of SES to represent family capital resources.

Individuals who come from a family of origin with higher income and education have been found to also have more education and job prestige (Osgood, Ruth, Eccles, Jacobs, & Barber, 2005). Additionally, individuals’ career outcomes are also determined in part by families providing greater opportunities, support, and socialization (Hughes & Thomas, 2003; Mortimer, Zimmer-Gembeck, Holmes, & Shanahan, 2002). From a psychological perspective, parental support for career is related to identity formation and career outcomes for both high school and college individuals (Alliman-Brissett, Turner, & Skovholt, 2004; Constantine, Wallace, & Kindaichi, 2005; Leal-Muniz & Constantine, 2005; Sartor & Youniss, 2002; Stringer & Kerpelman, 2010). The majority of studies examining the relation between parental support in career were studied in early adolescents in high school (Alliman-Brissett et al., 2004; Constantine et al., 2005; Leal-Muniz & Constantine, 2005) and different kinds of parental support have been identified, including modeling, encouragement, instrumental assistance, and emotional support (Alliman-Brissett et al., 2004). General parental support has been found to be positively associated with adolescents’ identity commitment, in that greater support from parents is
related to more identity achievement for both high school and college students (Berrios-Allison, 2005; Sartor & Youniss, 2002).

Another explanation for the way parental education may increase adolescent career outcomes is through the modeling and encouragement of certain basic skills that are required for educational and career-related success. In a study of families in the Netherlands, researchers examined “cultural capital,” or types of behaviors that parents’ engage in that promote children’s ability to navigate and succeed in educational careers. They found that parents’ reading behavior was related to increased success in their children’s educational careers. The underlying explanation is that skills from more highly educated or well read families can be passed down to their offspring, and can provide greater availability of books, reading material at home (De Graaf, De Graaf, & Kraaykamp, 2009).

As adolescents are grappling with various forms of identity challenges, they may look to their family for cues about directions to take. Secondary school remains somewhat of a structured environment, but the transition between adolescence and out of secondary school into emerging adulthood poses important questions about what one should do after high school – whether college is a path worth pursuing and how to get there, how to apply for adolescent work, or how to navigate both school and work simultaneously. In a qualitative longitudinal study of adolescents transitioning to early adulthood, parents were most frequently mentioned as both a resource and obstacle in moving young adults towards their eventual occupations (Mortimer et al., 2002). Depending on parents’ messages and family experiences about occupation, young adults reported feeling either encouraged or discouraged towards a particular career path.
Families with greater educational attainment may provide their children with messages consistent with those from school and educators about the importance of forming and pursuing career goals. Parental occupational and educational attainment has been related to child academic success (Sirin, 2005), level of agency, and future career outcomes (Thompson & Subich, 2011). For example, parental education with a bachelor degree predicted more individuals with greater agentic pathways (Vuolo, Staff, & Mortimer, 2012). An explanation for this finding is that parents’ values about work and education are transmitted to their children and can influence their child’s choices to act in self-directed ways towards career goals (Johnson & Mortimer, 2002). If an adolescent has greater resources from his/her parents and can gain some insight into the career exploration process through his/her parents’ expectations and modeling of education and work, then he/she may be more prepared to take on subsequent tasks of career development. Overall, the empirical evidence points to the importance of the kind of messages and resources that are provided by the family of origin, and that career development is not taking place in isolation. Therefore, in this study, it is expected that individuals with access to these greater resources, both physical and psychological support, through greater parental education, will engage in more career exploration during adolescence.

2. Adoptive Family Dynamics

Adoptive and non-adoptive families experience similar developmental tasks and challenges that are characteristic of the adolescent development life phase, such as separation-individuation, autonomy, attachment, and disciplinary and behavioral issues. Research in developmental psychology provides evidence of the importance of positive
family environments on a variety of adolescent outcomes, including well-being, academic achievement, and identity formation (Allen, Hauser, Bell, & O’Connor, 1994; Schultheiss & Blustein, 1994; Steinberg, 2001). More rapid growth of ego identity development in adolescents into emerging adulthood was related to a family context with greater autonomy and independence experienced in the family (Syed & Seiffge-Krenke, 2013). More positive and supportive family relations, parental bonding, and open communication, have been related to better psychological outcomes such as self-esteem and self-concept (Laursen & Collins, 2009). In terms of adoptive families, greater parental bonding strongly predicted positive outcomes for both adoptive and adoptive youth (Passmore, Fogarty, Bourke, Baker-Evans, 2005). This study assumes a developmental and contextual theoretical perspective in that the family context is highly influential on the outcome of both individual and family level outcomes.

While there exist similarities in family dynamics and processes in adoptive and non-adoptive families, adoption researchers and family therapists who specialize in adoptive families have highlighted some of the unique challenges that these families encounter. Kirk’s (1984) work on adoptive couples provided the first close look at how adoptive parents perceived themselves as different from non-adoptive families, and those adoptive parents who more readily acknowledged these differences were more satisfied with the adoption experience than those who rejected differences. When an adopted child enters the family unit, several issues arise that have been known to be unique to the adoptive family system, such as claiming, entitlement, and acceptance of an adopted child (Watson, 1996). Adoptive parents are required to reshape their own identities as parents and their ability to take on a role as an adoptive parent to a child may influence
the adopted adolescent’s identity development process (Grotevant, 1997). Hypothetically, the adoptive parents’ own ability to integrate their roles as adoptive parents may influence their adoptive child’s subsequent identity explorations in adolescence.

In studies of adoptive family environment variables, most variables have examined the family as a whole, and it is difficult to determine how much of family contextual variables are in part by the adoptive parents’ role or the child (Passmore et al., 2005). Therefore, in this study, the unique experience of adoptive parents and how this contributes to adopted adolescents’ outcomes is examined. In particular, examples of issues brought up in the adoptive family system: claiming, entitlement, and acceptance of the adopted child, are used to illustrate how adoptive parents are able to integrate the adopted child into their family.

Adoption clinicians and professionals have identified some key issues that adopted families are more vulnerable to experience that relate to a sense of belonging. First, claiming is the “mutual process by which an adoptive family and adoptive child come to feel that they belong to each other” (Reitz & Watson, 1992, pg 126-127). This claiming process can be promoted as parents find similarities between their child’s appearance, behavior, interests, and skills, with their own. Typically, with infant adoptions, the claiming process is unilateral, as the infant does not have consciousness or awareness of how they can claim their family. However, with age, especially in adolescence, if parents have not developed this sense of belongingness with the adopted child, this may disrupt the level of connection they feel with the child.

Relatedly, entitlement, or the sense that the parent has the right to parent a child, lays groundwork for the parent to feel as though they can both emotionally support their
child. In studies of adopted families, less feelings of entitlement has been related to poor disciplinary success, difficulties allowing the child to have age-appropriate experiences, and the need to control the child’s activities (Cohen, Coyne, & Duvall, 2004). In a study examining both adoptive and non-adoptive families, entitlement issues were present in both types of families, by way of feeling more distanced from their children and having more parenting doubts. Adoptive fathers reported feeling more distanced from their children and less discipline success than non-adoptive fathers (Cohen et al., 2004). In this study, however, the issues of entitlement were related to outcomes of family-level and marital dyadic outcomes, and did not examine adolescent outcomes. What is important to know is whether the parents experience of adoption, such as entitlement, can directly influence the adolescent’s own identity exploration. In the present study, the adoptive parents’ ability to integrate the adopted individual into the family is examined, and how this plays a role in adolescent career exploration.

3. Summary of Relevant Adoption Literature

In the identity theory literature, researchers often examine identity domains in a parceled manner, studying specific domains in isolation of one another. This has its benefits, as much of the literature about identity has shed light on the nuances of each these various domains. However, studying the interdependence and interaction of identity issues, not solely focusing on the role of one versus the other, can add a more holistic and integrative perspective on identity development. Theoretically, Erikson’s understanding of healthy and coherent identity development is characterized by the extent to which an individual can synthesize and integrate facets of their identity, and achieve some level of continuity over time (Schwartz, 2001; Syed, 2010). “Identity is experienced as a core or
center that gives meaning and significance to one’s world” (Marcia, 1993, p. 8) and this meaning can be constructed, depending on what a person feels is most relevant at a given time in life.

By extending this framework to a sample of adopted individuals, it is possible to empirically investigate the question of whether the career development process is similar or different for adopted adolescents who are undergoing the added task of their adoptive identity development. Rather than approaching this study as a between-group comparison of adopted and non-adopted individuals, this study examines adopted individuals across time to explore a more nuanced look at adopted individuals who are and are not eventually enrolled in post-secondary education.

The next section reviews empirical literature related to the individualization of career identity specifically, and delves into literature about career exploration, career adaptability, and career achievement. This section also discusses empirical literature on emerging adults – both enrolled and not enrolled in post-secondary education – and what is known about their individualization process of career identity.

**C. Individualization of Career Identity**

Erikson described what we now understand as “emerging adulthood” as a time of psychosocial moratorium (Erikson, 1968). During this time, individuals are expected to individualize their life paths, and those who assert the most agency and self-direction, “developmental individuators,” can be seen as having the most ideal psychosocial outcomes (Côté, 1997; Schwartz, Côté, & Arnett, 2005). Particularly in recent decades with changes in the economy, increases in post-secondary education enrollment, and fewer guaranteed career options, individuals act as “free agents” to develop their own self
and work identities. However, this idea of “free agents” in the individualization process may not necessarily lead to positive career outcomes. People need to cultivate resources they possess – internally or externally – to help achieve this goal.

Côté (1996) developed the identity capital model based on two empirically tested paths of individualization: default and developmental individualization. Identity capital resources vary from sociological tangible resources (parent social class, education, and income) to psychological intangible resources (personality traits and behaviors). Developmental individualization is characterized by greater levels of self-initiative and has been found to lead to greater identity capital acquisition (Côté, 1996, 1997). People who are more engaged in the exploration process of different facets of their identity, are likely to have more positive outcomes because they are consciously aware of and invested in the process of creating their own individualized life path (Côté & Levine, 2002). For examples, studies have shown that greater agency is related to better outcomes such as reduced likelihood of negative life events (Shanahan & Bauer, 2004), to fewer internalizing problems (Schwartz, Zamboanga, Weisskirch, & Rodriguez, 2009). This idea of one’s individualization of a career identity and utilizing identity capital resources to achieve better outcomes, can be extended to this study. Adoptees who are more apt to take advantage of external resources from the adoptive family, and intangible psychological resources geared towards different facets of identity (adoption and career exploration), may achieve better career outcomes.

1. Early Career Exploration During Adolescence

The crystallization of career goals is one of the key developmental tasks of career development (Super, Savickas, & Super, 1996) and career exploration is a central task in
identity development (Erikson, 1968). Career exploration consists of gathering information about oneself and one’s environment to facilitate career decision-making (Blustein, Devenis, & Kidney, 1989). Blustein, Devenis, and Kidney (1989) tied Marcia’s ego identity status paradigm with career identity development when they found that exploration of occupational identity is related to ego development. As individuals are undergoing exploratory processes during adolescence to gather information about one’s self-concept and identity (Grotevant & Cooper, 1988), the process of forming one’s career identity through career exploration in adolescence may be happening simultaneously. Blustein and colleagues (1989) examined a sample of college students and found that greater career exploration was positively related to moratorium and identity achieved statuses, and negatively related to diffusion. Just as Côté’s identity capital model states that those with greater agency will lead to greater identity formation and individualization, those who are more actively exploring their career options and are implementing more agency over the career development process will lead to better career outcomes.

A series of studies based on the longitudinal Youth Development Study, have found that adolescents assert more agency and explore their career options by pursuing and accumulating early work experiences while in high school (Mortimer, 2012). Also, values about occupational identity formed during adolescence predicted future work outcomes up to a decade later, and intrinsic values about work that fostered greater self-direction also predicted higher occupational status and job security (Johnson & Mortimer, 2011). These findings from longitudinal studies highlight the positive trajectories of career development that can be predicted from early exploration and planning during
adolescence. Furthermore, exploration of career options may promote future career
decision-making and better outcomes such as job satisfaction and match with one’s
abilities and goals (Mortimer, 2012). Clausen’s (1991) concept of “planful competence”
describes how individuals who are exposed to work experiences earlier in adolescence
will be better able to identify future goals and work values because they are making
active choices and engaging in the exploration stage of career development. Greater
occupational exploration during adolescence can lead to greater certainty of career goals
and result in better career-related outcomes such as higher wages in adulthood (Vuolo et
al., 2012), and college completion (Zimmer-Gembeck & Mortimer, 2007).

Blustein, Juntunen and Worthingon (2000) identified key features of an adaptive
transition from school to work, which entailed having links between school and
employment, personal relations with supervisors, teachers, mentors, peers, and
competence with general and specific work-related domains. Those who exhibited greater
agency early on by learning skills and building more of these connections with peers,
mentors, and teachers, were taking advantage of their identity capital to facilitate a more
successful transition from school to work. Furthermore, more agency during emerging
adulthood protected individuals from detrimental economic circumstances, specifically
the Great Recession between 2007-2009 (Vuolo et al., 2012). More agentic emerging
adults who displayed educational aspiration, certainty about occupational goals, and
greater engagement in the job exploration and search process, were most successful in
avoiding unemployment and wage loss (Vuolo et al., 2012). It is clear that greater
engagement in the career exploration process continues to play a large role in predicting
later work outcomes, even beyond emerging adulthood.
2. Career Maturity and Adaptability as a Mechanism for Career Development

The construct of career maturity, originally introduced in Super’s life-span, life space career development model was defined as “the individual’s readiness to make informed, age appropriate career decisions and cope with career development tasks” (Savickas, 1999). The underlying principle of career maturity is that as each task is achieved, this can predict someone’s readiness to successfully achieve the tasks at subsequent stages. Correlates of career maturity include demographic variables such as age, gender, and socioeconomic status (Blustein et al., 2002; Creed & Patton, 2003; Patton & Creed, 2001, Prideaux & Creed, 2001), and career variables such as career indecision, career decision-making self-efficacy (Patton & Lokan, 2001; Powell & Luzzo, 1998).

The original definition of career maturity proposed by Super (1980) has been challenged because of the lack of attention to personality factors and decision-making (Raskin, 1998), social contextual factors (Patton & Lokan, 2001; Raskin, 1998; Schmitt-Rodermund & Silbiersen, 1998), and not being as useful for understanding adult career development (Savickas, 1994; 1997). Even Super himself proposed a change from the term, “career maturity” to “career adaptability” to better convey the types of tasks that take place at various time points across career development, and Savickas (1997) proposed “career adaptability” to replace career maturity to reflects the ability for someone to cope with changes in work and other life roles, and economic and social circumstances. To allow for a more flexible and longitudinal perspective of this construct, the term “career adaptability” is used for the present study. This overarching theoretical definition of career adaptability helps make sense of what was originally proposed as a
state of “maturity” in a context of such rapid changes in our society and economy. While career adaptability is the relevant term and construct used in the present study, it is important to remember that despite the criticism of the original construct, career maturity has prevailed in studies of career development, especially in studies of adolescent career development, and the empirical evidence remains useful in the research hypotheses for the study.

Career adaptability is defined as “the readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by the changes in work and work conditions” (Savickas, 1997, p. 254). Savickas (1997) proposed three dimensions of career adaptability: planning, exploration, and decision-making. Having greater career adaptability is having a greater set of skills or traits that, from a developmental perspective, helps an individual through the transition from adolescence into emerging adulthood, in terms of his/her career development. In a prospective longitudinal study of 8th grade adolescents, higher career adaptability predicted higher life satisfaction and a sense of power (Hirschi, 2009). In addition, improving career adaptability skills of decision-making and exploration was found to reduce college students’ self-perceived concerns associated with resolving a career choice (Creed, Fallon, & Hood, 2009; Yousefi, Abedi, Baghban, Eatemadi, & Abedi, 2011). Career adaptability has been operationalized in several research studies as career decision self-efficacy, career choice commitment, planning, and career identification. Given the evidence of career adaptability and supporting research on career maturity, it is expected that an individual who possesses higher degrees of the traits and competencies within the broader construct of adaptability will have a more successful transition into subsequent
stages of career development.

3. Career Achievement Outcomes

Within the literature of career development, outcomes or markers of “successful” career development varies from career-decision making self-efficacy to job satisfaction and this largely depends on the theoretical perspective from which one examines career development. Given Super’s developmental contextualist and constructivist perspective to his theory of career development, one’s “success” in career development is not something that takes place once in time, or in a linear fashion. Instead, as someone continues to move through each of the stages, and is striving towards implementing their self-concept, interests, and skills in the context of work, this can lead to greater satisfaction and fulfillment in the work role. Theoretically, someone who is better able to implement their self-concept and career goals with their current occupation, will be more satisfied, and will be more likely to find a better match between their current occupation with their career goals. As career development is a process that takes place over time, by the time someone is in their later adult years, one should strive towards having a job or have made career decisions that are part of longer term work goals.

The concept of achieving a “match” between one’s self and work role is not specific to one career theory. Other career theories, such as Holland’s (1985) theory of vocational personality and work environment, focus on the space between the person and their work environment. The term “congruence” was used by Holland to describe the degree of match between one’s personality and interests and work environment (Holland, 1985). Similarly, “fit” is a term used in the theory of work adjustment (Dawis & Lofquist, 1984), centered around the notion of the degree of person-environment (PE) fit, and how
a better PE fit leads to greater satisfaction. Returning to Super’s stages of career development, in later adulthood, Establishment, is characterized by the manifestation of self in an occupational role, and working towards increasing the fit between his/herself and one’s work environment (Super, 1980). The similar pattern across various career theories is the concept of an ideal match between one’s self (personality, interests, self-concept) in the work role, and how this predicts better satisfaction and stability.

The empirical literature supports this notion of fit between one’s career goals and aspirations and their current occupation, being a marker of successful career development. In a sample of emerging adults in college, congruence between one’s current work position and career aspirations was found to be related to higher career maturity (Luzzo, 1995). However, this study was correlational in nature, studying one time-point of career maturity and congruence of aspirations and occupation, making it difficult to know the direction of the effect of these variables. Many studies are also cross-sectional in nature, and one of the gaps in the empirical literature is to examine the process of career establishment over time, from a longitudinal perspective. Also, various studies looking at career development, particularly in relation to career maturity, have used career decision-making and career decision-making self-efficacy as outcome measures (Keller & Whiston, 2008; Patton & Creed, 2001; Patton & Lokan 2001; Powell & Luzzo, 1998; Seiffge-Krenke, Persike, & Luyckx, 2013). This study examines the relation between career exploration, career adaptability, and a more comprehensive measure of achieving a positive career outcome including not only satisfaction, but also the degree of fit of one’s current occupation with their long term goals and also the match between their occupation and their long term goals. Focusing on how the current
occupation in the larger scheme of a long-term career goal maintains continuity with the theoretical framework of Super’s developmental theory that career establishment is part of a larger process of career development.

D. Career Development in Emerging Adults

While there is greater attention to emerging adulthood as a distinct life stage, the empirical literature regarding emerging adults has been greatly skewed towards college-enrolled individuals. The empirical literature that examines the distinction between those who enroll in college or not is predominately sociological in nature, particularly around the school-to-work transition and socioeconomic factors that affect the decision to pursue post-secondary education and/or work (Blustein, Juntunen, & Worthington, 2000; Brown, Fukunaga, Umemoto, & Wicker, 1996; Hotchkiss & Borow, 1996; Wells & Lynch, 2012). In general, emerging adulthood is characterized by many changes and uncertainties (Arnett, 1994, 2000). As emerging adults are individuating and creating their paths towards adulthood, those who have greater agency and initiative to take steps towards their future career goals are bound to have more stability and achieve markers of successful career identity (Mortimer, Vuolo, Staff, Wakefield, & Xie, 2008). However, there is almost no empirical literature on whether the individualization process looks different for those who are enrolled in college versus those who do not enroll in college, also known as the “forgotten half” (Halperin, 2001). The “Forgotten Half” entails the approximate fifty-percent of emerging adults in the United States who do not follow the path from secondary to post-secondary education and are frequently left out from career development literature and other studies of emerging adults who can more readily be studied at undergraduate institutions (Blustein, 2001; Halperin, 2001).
Studies that have looked at non-college enrolled, or “work-bound” adolescent youth, have found that social class plays a large role in the decision to delay or forego post-secondary education (Blustein et al., 2002; Bozick & DeLuca, 2005; Brown et al., 1996; Osgood et al, 2005; Owens, 1992). The United States provides few structural supports and institutional support systems to facilitate career-related transitions during emerging adulthood. The United States has fewer post-secondary tracks and options compared to that of Germany or other European countries that have institutionally implemented systems such as vocation education, apprenticeships, and financial support for alternative options (Seiffge-Kreike et al., 2013). While, in the US there are different types of post-secondary education institutions, such as two-year colleges, four-year colleges, and community colleges, the overarching two tracks available to individuals are between post-secondary education or work. Peoples’ choices regarding their education and career is constrained and enabled by one’s circumstances and social context (Mortimer et al., 2002; Shanahan & Elder, 2001). College is one of these unique settings that can enable career exploration and lead to greater career maturity. Coté described higher education as a contemporary form of “institutionalized moratorium,” a setting in which students have the time and resources to explore their career options by way of choosing different majors, and having access to internships, assistantships, and continuing education courses throughout the course of their college tenure. This higher-educational setting may be a specific context that allows for more growth and self-exploration (Côté, 2000; Côté & Levine, 2002; Yoder, 2000). The years spent in college allows individuals to explore their self-concept, engage in more planning, and may lead to more career maturity for those who attend college than those who are not in college.
and are committed to a job.

The concept of two paths of individualization is not unique to college-enrolled emerging adults. Evans and Heinz (1994) examined work-bound youth in Germany and Britain, and were able to differentiate between active versus passive individualization in these youth. The work-bound youth undergoing active individualization engaged in self-initiated activity, had clear-cut occupational goals, and sought out the means to find a match between their interests and values. In an exploratory qualitative study of 45 non-college 18-29 year olds, Blustein and colleagues (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997) identified various attributes associated with successful transitions to work. Those who were more involved and purposeful towards career options and engaged in self and environmental exploration, had a clear sense of self, had institutional opportunities to facilitative of adaptive transitions and strived to get access to educational and vocational training options (Blustein, Phillips, Jobin-Davis, Finkelberg, & Roarke, 1997).

There are a variety of specific issues that this study aims to address with regard to career development in both college-bound and non-college enrolled emerging adults. Many of the studies that have examined non-college enrolled, or working emerging adults have been done in non-U.S. samples, such as Germany (Luckyx, Schwartz, Goossens, & Pollock, 2008; Seiffge-Krenke et al., 2013) and Canada (Marcotte, 2012). It is important to determine how individualization of career identity applies to American emerging adults outside the college setting, and how career development takes place across time for this population. In addition, the limited number of studies that have used U.S. samples, have either only looked at non-college emerging adults alone, but have not
compared college and non-college emerging adults within the same study. Blustein (1997) described the idea of a “context-rich perspective of career identity development” in which researchers should strive to find the common thread between identity formation processes and career development, and how exploration takes place in both contexts. This study, uses a longitudinal design and examines a U.S.-based adoptive sample with both emerging adults who are enrolled in post-secondary education and are not enrolled, enabling an empirical comparison between these two groups. Addressing career development of both enrolled and non-enrolled emerging adults in post-secondary educational institutions will be a way to incorporate this context-rich perspective.

E. Historical Context of the Present Study

The nature of this longitudinal-design study brings forth the issue of historical context and how this shapes the process of career development of the sample over time. Elder’s life course theory posits that individuals should be examined within the context of both time and place, and highlights the important connection between the individuals being examined and the historical and socioeconomic context in which these lives are taking place (Elder, Johnson, & Crosnoe, 2003).

This study draws from data of the adoptive families at three distinct periods between 1996 to the present day. The lives of the adoptee and his/her family are situated in different economic climates. First, from 1996-2001 when the adoptive adolescents were living with their adoptive parents, there was a positive surge in the economy and an increase in technological advances as a result of the “dot.com” era. Later in 2005-2008, adoptees were experiencing their emerging adult years during the Great Recession, an economic downturn that resulted due to the burst of the “dot.com bubble,” post-9/11
market collapse, and the crash in the housing market. Subsequent years, up until the current time, have been marked with modest improvement in the economy and unemployment statistics. Clearly, career development looks very different now compared to what it did for the parents of these now adult adoptees. The value of a post-secondary education and specialized training is higher now than decades past. Therefore, as the present study aims to examine the individualization of career identity of adolescents and emerging adults both college and non-college enrolled, the findings of this study must be understood within the context of the socioeconomic climate during which the research participants development occurred.

F. Research Questions and Hypotheses of the Present Study

The present study aims to fill some significant gaps in the current literature regarding potential differences in career development in college and non-college enrolled individuals, and examining the role adoptive identity may play in this process across time. The overarching specific aims of this study are tested through the specific research question and corresponding hypotheses. Figures 1a – 1c illustrate the hypothesized models tested in the study.

Specific Aim 1. To examine the role of adoptive family resources and adoptive identity on adolescent career exploration (Figure 1a).

a) Adoptive family resources and career exploration
The external resources available within the family, in the form of parental education, provides both the tangible resources associated with higher socioeconomic status, and also social support towards achieving education and work. It is hypothesized that that the
greater number of years of education reported by the adoptive parents will predict greater adopted adolescent career exploration.

b) Adoptive family integration and career exploration
The unique family dynamics that exist due to one’s adoptive status in a family can play a major role in the adoptee’s identity formation process. This in turn can affect the ability for one to successfully transition through the career development process. It is hypothesized that adoptive parents with a greater sense of entitlement, claiming, and acceptance, will be related to greater career exploration on the part of the adopted adolescents.

c) Adopted adolescent identity focus and career exploration
An exploratory hypothesis is examined in this study given the lack of existing research on the mutual process of adoptive identity exploration and career identity exploration. Based on the idea that adoption and career identity are two “layers” of identity that compete for internal resources, one hypothesis is that greater adopted adolescent focus on adoptive identity will predict less career exploration. Alternatively, in line with the idea that adoptive identity status can lead to greater integration with career identity and can potentially inform certain career-related decisions, it is possible that greater adoption focus will lead to greater career exploration.

Specific Aim 2. To examine the career developmental process from adolescence, emerging adulthood, into adulthood (Figure 1b).
Based on existing career literature indicating the direct relationship between career exploration with better career outcomes, it is hypothesized that adolescents who engage in greater exploration will have higher career achievement in adulthood. Furthermore,
according to Super’s model of career development, those who explore their career options, may also exhibit more adaptability to circumstances and changes around career. Greater adaptability should also be related to greater career establishment or better outcomes. Thus, it is hypothesized that the direct relationship between adolescent career exploration and adult career achievement, will be partially mediated by career adaptability.

Specific Aim 3. To examine the role of enrollment status in post-secondary education as a moderator of these relationships in career development (Figure 1c). Higher education settings are thought to be a contemporary form of “institutionalized moratorium” in which individuals have time and resources to explore their career options. Given that this college setting may provide more structure that allows for growth and career exploration, it is hypothesized that the strengths in the indirect relationships between career development variables will differ by post-secondary education enrollment status such that there will be a stronger positive association between career exploration and career adaptability, and career adaptability with career achievement outcomes for those in post-secondary education compared to non-enrolled emerging adults.
CHAPTER 3

METHODOLOGY

The present study used a sub-sample of adoptees from an ongoing longitudinal research study, the Minnesota/Texas Adoption Research Program (MTARP; Grotevant, McRoy, Wrobel, & Ayers-Lopez, 2013). The focus of MTARP has been to examine the impact of various contact arrangements between adoptive and birth families on different outcomes of the adoption kinship network, including the target adopted child, birth mothers, siblings, and adoptive parents. There were four waves of data collected since the mid-1980s through 2015. The adoptive families were recruited through 35 U.S. adoption agencies, and the target adopted child was adopted before his or her first birthday. The first wave of data was collected when the target adopted child was between the ages of 4 to 12 years ($M = 7.8$). All adoptions were domestic, same-race, and none were special needs. For a more complete description of the research design and key findings of Waves 1 to 3 of MTARP, see Grotevant, McRoy, Wrobel, and Ayers-Lopez (2013), and the project website at http://www.umass.edu/ruddchair/research/mtarp.

A. Participants

Data were used from three different time points, Waves 2, 3, and 4, collected during 1996-2001, 2005-2008, and 2012-2014, respectively. Table 1 shows the recruitment and attrition of the sample across Waves 1 to 4. Of the original 190 adoptive families who participated at Wave 1 (1986-1992), 177 adoptive families participated at Wave 2, 181 families participated at Wave 3, and 114 adopted adults participated at Wave 4. Based on demographic characteristics at Wave 1 of the entire sample, the overall sample is primarily White (97%), Protestant, and middle to upper-middle class.
At Wave 2, participants included 156 adopted adolescents \( (n = 75 \text{ males}, 81 \text{ females}) \), 173 adoptive mothers, and 162 adoptive fathers. On average, adopted adolescents were about 16 years old, adoptive mothers were 47 years old, and adoptive fathers were 49 years old (Table 2). At Wave 2, most adoptive parents were still married and most were college educated.

At Wave 3, participants included 169 emerging adult adoptees \( (n = 87 \text{ males}, 82 \text{ females}) \), 151 adoptive mothers, and 134 adoptive fathers. Emerging adults were between the ages 21-29 (mean = 24.95). At Wave 4, participants included 114 adult adoptees \( (n = 50 \text{ males}, 64 \text{ females}) \) between the ages 27 – 38 (mean = 31.43).

**B. Procedures**

At Wave 2, adoptive families were seen in their homes for a single 4-5 hour session during which a semi-structured audiotaped interview was conducted separately with each adoptive parent and the target adopted adolescent. Following the interviews, the participants completed questionnaires and a family interaction task. When it was impossible to gather everyone for the home visit (e.g. living outside the U.S.), participants were interviewed by phone. All identifying information was changed in the transcripts of the audiotaped interviews to protect confidentiality.

At Wave 3, emerging adult adoptees completed questionnaires and interviews online via a secure Internet site. The emerging adult was provided with a unique survey username and password to access a consent form, compensation form, a link to a secure chat site for the interview, and questionnaires. Most interviews took place in two to three sessions. Some interviews took place by phone, and some completed questionnaires in paper format for reasons such as lack of Internet access. Emerging adult adoptees were
compensated $75 for completion of the interviews and an additional $75 for completion of the questionnaires. Adoptive parents completed interviews over the phone and questionnaires in paper format. Parents did not receive compensation for participation.

Wave 4 data collection took place between 2012 to 2014 using questionnaires via a secure Internet site. The adult adoptee participants were contacted via email and a hardcopy letter to gauge interest in participating in the survey, and the adults’ adoptive parents were contacted if the adult could not be reached. The adoptees completed the survey online using a unique link assigned by Qualtrics, an online survey software. The survey consisted of 11 parts for those participants without children, and 13 parts for those participants who indicated they had children. The participants were compensated $50 for completion of the survey and were entered into a raffle to obtain an iPad.

All procedures were reviewed and approved by the Institutional Review Boards where Dr. Grotevant was employed at the time: the University of Texas at Austin (Wave 1), University of Minnesota (Waves 1, 2, and 3), and the University of Massachusetts Amherst (Wave 4). At all waves of data collection, the participants were given information about the study, and informed consent was received.

C. Measures

This study used data from Wave 2 and Wave 3 interviews and questionnaires, and Wave 4 questionnaires. Given the extensive number of measures administered in the broader study, only the measures used specifically for the study are discussed. More details about the measures can be found at

http://www.psych.umass.edu/adoption/research_design/measures/.

1. Coding Procedures
The adopted individuals’ interviews were coded to assess for various issues of interest from the identity sections (adoption, occupation, religion) at Waves 2 and 3. There were two different coding schemes used, one for adopted adolescents’ career exploration at Wave 2 and of emerging adults’ career adaptability at Wave 3. Appendix A shows the most current coding procedures for career exploration, which were updated and developed by Von Korff, Grotevant, and Friese (2007). The coding schemes and ratings were based on the entire transcript of the interview. Since coders made judgments that required moderate to high levels of inference, all global coding of transcripts was conducted by the principal investigator, graduate students, or advanced undergraduate students. The general protocol was to train coders to an initial reliability of at least .80 (percent exact agreement) by using the appropriate codebooks and criterion interviews. After average inter-rater reliability of .80 was reached, each interview was coded independently by two to five coders and disagreements were resolved through discussion. Inter-rater reliability was monitored throughout the course of coding (Appendix A).

To code for emerging adults’ career adaptability at Wave 3, a new coding scheme was developed by the principal researcher/author to assess the degree to which participants had thought about a work future (exploration) and taken steps to pursue that career plan (planning), even if they have not yet achieved it. The initial coding definitions of career exploration and planning were developed from existing theory, empirical studies, and the subsequently used definitions and rules for assigning codes were refined based on iterative coding of the transcripts. The coding definitions and rules for assigning codes of career planning and career exploration are included in the coding manual (see Appendix C). All of the emerging adults’ interviews had previously been transcribed. The
coders were instructed to first read the entire occupational section of the Adoptive Identity interview when assessing for career adaptability, and then code ratings based on individual questions in the interview that corresponded to the respective dimensions of career planning or career exploration. The specific procedures for developing the novel coding scheme for career adaptability are discussed in Appendix C.

**a. Coder Recruitment and Didactic Instruction**

A group of three advanced undergraduate students in psychology, in addition to the principal researcher, were part of the coding team, allowing for four possible coding pairs. All members of the coding team were provided with didactic readings about foundational theoretical and empirical readings relevant to the study (e.g., career development, and emerging adulthood), in addition to the first version of a coding manual, first developed by the principal researcher.

**b. Development and Validation of the Coding Scheme**

To ensure consistency in coding, raters applied the coding scheme on a sub-sample of criterion interviews. Coders were instructed to apply the codebook to the entire occupational section of the Adoptive Identity interview. As a group, the coders read the entire section, and rated the interview response based on the codebook definitions. The author established the criterion ratings, and these criterion ratings served as a comparison for the ratings made by coders. The coding group met weekly to check consistency, review the ratings, and discuss any discrepancies.

Once the group had been trained on the coding manual and definitions, coders were instructed to independently code and rate a sub-set of interviews. The principal researcher calculated the inter-rater reliability across the four pairs of coders. Due to low
initial reliability estimates, more training was provided, and decisions were made to revise the coding definitions. This iterative process of coding sample interviews, checking inter-rater reliability, and revising coding rules continued and resulted in the final version of the career adaptability coding manual (Appendix C).

**c. Reliability of the Coding Scheme**

The final coding scheme was applied to the rest of the transcribed interviews. Out of the total number of available Wave 3 transcribed interviews \( n = 162 \), 25% were double-coded by at least two independent coders \( n = 40 \), and a subset \( n = 14 \) were coded by the entire team for coding training and reliability purposes. There were six individual items rated for career planning, and nine individual items rated for career exploration. Inter-rater reliability alphas were calculated using Krippendorff’s alpha (Hayes & Krippendorff, 2007; Krippendorff, 2004). This alpha statistic takes into account any number of observers (not just two), any number of measures, any level of measurement, incomplete or missing data, and both small and large sample sizes (Hayes & Krippendorff, 2007). Given the novelty of the coding scheme for career adaptability for the current study, the reliability alphas ranged from .48 - .81. Items with Krippendorff alpha values lower than .55, or items that had several missing or not applicable ratings (e.g. a specific interview question did not apply to the individual, or the question was not asked), were excluded. The final average score of emerging adults’ career adaptability at Wave 3 used in data analyses, was based on four individual coded item ratings of career planning and seven coded item ratings of career exploration.

2. Demographic Variables and Post-Secondary Education Enrollment Status
Age, gender, and years of education of both target adoptee and adoptive mothers and fathers were obtained from the demographic questionnaires administered at each wave (Table 2 shows Wave 2 demographic information). A dichotomous variable, “Post-secondary education”, 0 (non PSE enrolled) or 1 (PSE-enrolled), was created based on the response on the demographic questionnaire about the highest grade or year of school completed at Wave 3. Non-post-secondary education enrolled participants included those who achieved up to a high school diploma, and post-secondary education enrolled participants were coded as those who achieved an associate’s degree and higher (see Table 2).

3. Adolescent Family-Level Variables

The construct of “Adolescent Adoptive Identity” was assessed using three variables: adoptive parents’ education, adoptive family integration, and adopted adolescent identity focus.

a. Adoptive Parents’ Education Level

The adoptive parents’ education was obtained from each parents’ response on the demographic questionnaire administered separately to each parent at Wave 2. A latent factor score was computed using the two indicators of the adoptive mothers’ and adoptive fathers’ years of education from Wave 2.

b. Adoptive Family Integration

To assess for the degree of adoptive family integration reported by the adoptive parents, a latent factor score was computed from three indicators based on the adoptive mothers’ ratings of claiming, acceptance, and entitlement from the Psychological Parenting Questionnaire (Henney, 1995) at Wave 2. The Psychological Parenting
Questionnaire consists of 55 items and was designed to measure beliefs, attitudes, emotions, and behavior of non-biological parents to assume the parenting role of a child. Three doctoral students selected items for further inclusion on three subscales for a total of 31 items. Three dimensions: claiming (7 items), entitlement (15 items), and parental acceptance (9 items) were used in the present study. Claiming refers to the parents’ mutual process by which the adoptive family and adopted child come to feel that they belong to each other (Reitz & Watson, 1992). Entitlement refers to the adoptive parent’s sense that they have the legal and emotional authority over their child. Parental acceptance is the comfort with parenting the child and comfort with the adopted child’s place in the family (Reitz & Watson, 1992). Higher scores on each of the dimensions reflect more confidence in parenting and the child’s place in the adoptive family. In prior work by Phillips (2000), psychometric analysis demonstrated alpha reliabilities of .46 (mothers) and .62 (fathers) for claiming, .75 (mothers) and .71 (fathers) for entitlement, and .77 (mothers) and .83 (fathers) for parental acceptance. In MTARP, this measure was administered separately to adoptive fathers and mothers. However, in the present study, a latent factor score of adoptive family integration was created based on the adoptive mothers’ scores of each dimension at Wave 2.

4. Adoption Identity Focus

To assess for the degree of adoption identity focus experienced by the adoptee at Wave 2, Adoption Identity Focus was a latent factor score computed from the adoptee’s preoccupation with his/her adoption, and the level of satisfaction with the openness arrangement with his/her birthmother.

a. Preoccupation With Adoption
The target adoptee’s responses on the Preoccupation with Own Adoption (PRE) scale from the Adoption Dynamics Questionnaire (ADQ: Benson, Sharma & Roehlkepartain, 1994b) was used to assess for the adopted individual’s preoccupation with adoption. The complete ADQ includes 44 items with three scales, assessing positive affect about own adoption (PA, α = 89, 20 items), preoccupation with own adoption history (PRE, α = 89, 17 items), and negative experience with own adoption (NE, α = 59, 7 items). In MTARP, one item was dropped and one item was split into two to include answers for birthmothers and birthfathers. The PRE scale included statements such as “It bothers me I may have brothers and sisters I don’t know”, and “I wish I knew more about my medical history.” Participants rated their answer either on a five-point Likert scale from 1 (not true or strongly disagree or never) to 5 (always true or strongly agree or always), between 7 levels of frequency (never to everyday), or between 3 levels marking “no”, “not sure” or “yes”. Due to the different metrics across the items, prior to creating the indicator score, all of the 17 items were re-scaled to a consistent metric of a 7-point Likert scale. Higher scores indicated a higher level of preoccupation with one’s adoption. Parceling (Little, Cunningham, Shahar, & Widaman, 2002) was used to create two indicators of preoccupation to create a more parsimonious model with fewer individual indicators and improve reliability of the two indicators (as opposed to 17 individual items). The total 17 items were assigned to two parcels based on the factor loadings of the individual items, creating PRE parcel 1 (8 items) and PRE parcel 2 (9 items). The two parcels were included as part of the computed latent factor score of Adoptive Identity Focus.

b. Satisfaction with the Level of Openness with Birthmother
The level of satisfaction with the level of openness occurring with the birthmother was used from the openness coding from the Adoptive Interview at Wave 2. The openness coding process was designed to capture various issues related to the adopted adolescents’ experiences within the adoptive kinship network. The openness coding section of the coding manual is included in Appendix B. The level of satisfaction with openness was defined as the level of satisfaction no matter what the contact type was. For example, an adopted adolescent with no contact could be very satisfied with none, and likewise, adolescents with contact could be very dissatisfied and desire more or less contact. The coding looked at feelings regarding birth family members, both the birthmother and/or birthfather. The ratings for birthmother only were used, as the majority of contact arrangements were with birthmothers. Satisfaction was originally rated from the interviews on a scale, from 0 (very dissatisfied) to 4 (very satisfied), and 6 to indicate “ambivalent/mixed” level of satisfaction. To keep the indicators for adoptive identity focus in the same direction (more preoccupation and more dissatisfaction) and on a continuous scale, the original satisfaction score was reverse coded and ratings of 6 (ambivalent/mixed) were recoded to a rating of 2 (neutral). The current updated rating of dissatisfaction with the level of openness with the birthmother was a 5-point Likert scale, from 0 (very satisfied) to 4 (very dissatisfied).

5. Career Identity Development

Three latent factor scores across three time points were used to assess the adopted individual’s career development process over time.

a. Adopted Adolescent Career Exploration
The ratings of career exploration in depth and in breadth were used as indicators for a latent factor measuring career exploration during adolescence. Ratings of career exploration in depth and exploration in breadth were coded from the Occupation Identity section of the adolescent interview at Wave 2 using an earlier developed system for assessing identity exploration, commitment, and status (Grotevant & Cooper, 1981). Depth of career exploration was defined as the degree to which the adolescent investigated or examined his career identity with clarity, intensity, reflection or thoughtfulness. This was rated on a scale from 1 (no/minimal depth) to 4 (great depth). Breadth of career exploration was defined as the degree to which the adolescent explored multiple choices or options, or different ways of thinking about career. Breadth was coded on a scale from 1 (no/minimal breadth) to 4 (great breadth). Discrepancies were discussed and consensus achieved for each disagreement, and average inter-rater reliability across the various coded issues from the Adoptive Identity Interview was 74.2%. Sections of the coding manual for the Occupation Identity section of the Adopted Adolescent Interview are available in Appendix A.

b. Emerging Adult Career Adaptability

Career adaptability was coded from the Occupational Identity section of the emerging adults’ interview at Wave 3. Coded ratings of individual items within the dimension of career planning and career exploration were used collectively to assess the level of career adaptability. The coding protocol was developed for the current study (Appendix C). Career planning was defined as the individual’s level of thinking about a future career path or chosen field of study. Higher ratings on individual items for career planning were based on the presence of higher degree of specificity demonstrated in the
individual’s response, higher level of certainty or confidence in the response, and consistency of the response throughout the interview. Career exploration was defined as the individual’s active use of resources and engagement in exploration of future career choices. Similar to career planning, higher ratings on individual items of career exploration were based on the presence of higher specificity and elaboration in the individuals’ response, and greater certainty and confidence in the response. In addition, greater breadth and/or depth of the number of resources or experiences explored was indicative of higher ratings overall of career exploration.

The coded ratings for each of the questions ranged from a score of 0 (absent planning/exploration), 1 (present and low or minimal planning/exploration), or 2 (present and high planning/exploration). A latent factor score of career adaptability was computed using scores from the individual items of planning and exploration coded from the interviews.

c. Adult Career Achievement Outcomes

Career achievement at Wave 4 was measured by a latent factor score computed from three indicators: adopted adults’ ratings of job satisfaction, the degree to which the adopted adults’ perceived that their job was related to their long-term career or work goals, and the degree of match between the adult’s job and ultimate career goals. All three of these items were included in the demographic questionnaire at Wave 4. Those who reported they were currently employed for pay at least 10 hours per week were asked to respond to the three items based on their “primary job” at which they worked the longest hours and/or from which they made the greatest income. The level of satisfaction was assessed along a Likert scale, ranging from 0 (extremely dissatisfied) to 5 (extremely
satisfied). The degree to which the primary job is related to long-term career or work goals was assessed on a scale from 0 (I do not have long term career or work goals), 1 (my primary job is not related to my long term career or work goals), 2 (my primary job is helping me prepare for my long term career or work goals), and 3 (my primary job is part of my long-term career or work goal). The degree to which the primary job matches the adopted adults’ ultimate vocational or career goals was rated on a Likert scale of 0 (no match/unrelated) to 5 (excellent match).
CHAPTER 5

RESULTS

A. Data Analysis

Ordinary least square (OLS) regression was used in SPSS 21 to estimate a model with adoption-related variables and career exploration, the simple mediation model, and conditional process model. The PROCESS macro (Hayes, 2013) in SPSS was used to test for mediation, and conditional process analysis (otherwise known as “moderated mediation”). Due to missing data from different time points during the course of the longitudinal study, cases with missing data were accounted for using the multiple imputation method in LISREL (Allison, 2003; Graham, 2009), and the resulting dataset used for analyses included a sample of 177 adoptive individuals. At Wave 4, 114 adopted adults participated, therefore, 36% of the data were imputed from Wave 4 to include information in measures assessed at earlier timepoints.

1. Latent Factor Scores

Latent factor scores were used in the tested models. The use of latent factor scores has several advantages over the use of individual observed variables, or mean composite scores. First, latent factor scores that are calculated in structural equation modeling reduce the amount of measurement error, thus resulting in more reliable measures of the variable of interest. Secondly, the latent factor score is more normally distributed than the individual indicators or a mean composite of various indicators (Jöreskog, 2000).

Structural equation modeling in LISREL was used to output the latent factor scores. The original raw data were the observed variables measured at different waves from the adoptees and adoptive parents. The raw data were pre-processed in PRELIS.
(Jöreskog & Sörbom, 1996) to generate a covariance matrix that was used as input to the LISREL program. The computed latent factor scores were output and used as the variables in the models tested in SPSS. Table 3 shows the mean values and distribution of values of the latent factor scores, and Table 4 shows the mean values and distribution of values of the respective indicator-level variables corresponding to the latent factors.

**B. Role of Adoptive Identity on Adolescent Career Exploration**

In an OLS regression model, latent factor scores for adoptive identity focus, adoptive family integration, and adoptive family resources, were entered as predictors of the latent factor, career exploration during the adoptee’s adolescence (Figure 1a shows a conceptual figure of this tested model). As can be seen in Table 4, identity focus, adoptive parents’ education, and parents’ family integration were not related to adolescents’ career exploration.

1. **Post-Hoc Comparison by Age Group**

In the first tested model, the entire sample of 177 adolescents was between the ages of 11 to 21 years old. Early adolescents, who are at the early stages of high school, may not be focused on identity-related issues, especially career-related issues. It is possible that career exploration may not be as salient of a task for younger adolescents compared to their counterparts in later adolescence. Later adolescents, who are beginning to think more about possible academic majors in college or jobs after high school, may engage in more identity exploration - both adoption and career-related exploration. Therefore, follow-up analyses were conducted to explore whether the relationship between adoption-related predictors (adoptive identity focus, family integration, and parent education) and career exploration differed for early adolescents (between 11-15.99
years, \( n = 103 \), and late adolescents (between 16 - 21 years, \( n = 74 \)). A simple moderation model was tested using a dichotomous indicator of age (e.g. early adolescents = 0, late adolescents = 1).

When both main effects (including age) and an interaction term (between age group and adoption variables) were included in the model, there was no significant interaction between age group (early vs. late adolescents) and adoption variables to predict career exploration. A simpler regression model was tested without the interaction term, and both age and parent education were directly related to career exploration, shown in Table 5. Adolescents whose parents had more years of education engaged in more career exploration \((b = .153, p = .037)\), and older adolescents engaged in more career exploration than younger adolescents \((b = .968, p < .001)\). The results of a one-way ANOVA are shown in Table 6, which show that older adolescents engaged in significantly more career exploration compared to early adolescents. Figure 2 illustrates these mean differences between early and late adolescents on career exploration.

**C. Mediation of Career Exploration and Career Achievement Through Career Adaptability**

The second research question in this study examined whether the degree of career exploration was directly related to greater career achievement outcomes in adulthood, and whether these direct relationships were mediated by career adaptability in emerging adulthood (Figure 1b shows the conceptual model of this question). A simple mediation model resulted in no evidence for career adaptability as a mediator of the relationship between career exploration and achievement. A bias-corrected bootstrap confidence interval for the indirect effect based on 1,000 bootstrap samples included the value of 0 (·
0.0172 to 0.033), meaning there was no indirect effect of career exploration on career achievement through career adaptability. As shown in Table 7 and Figure 3, adolescents who engaged in more career exploration reported lower career achievement during adulthood ($c' = -0.114, p < .001$). Furthermore, when emerging adults engaged in higher career adaptability, this was related to greater career achievement in adulthood ($b = .756, p < .001$).

**D. Moderation of Career-Related Variables by Post-Secondary Education Enrollment**

The third research question in this study was to examine whether the mediated relationships between career exploration and career achievement, through career adaptability, was moderated by post-secondary education (PSE) enrollment status. A conditional process model was tested using a dichotomous moderator of enrollment status ($0 = \text{non-PSE enrolled}, 1 = \text{PSE-enrolled}$).

The first conditional model included PSE-enrollment status as a moderator of all three paths in the mediation model. The results indicated that there were no significant interaction effects (Table 8). In other words, the relationship between career exploration, adaptability, and achievement, did not differ depending on whether or not adopted individuals were enrolled in post-secondary education.

A one-way ANOVA test was used to compare mean differences in scores of career exploration, career adaptability, and career achievement, depending on post-secondary education enrollment status, shown in Table 9. PSE-enrolled individuals engaged in more adolescent career exploration and had more career adaptability during
emerging adulthood compared their non-PSE enrolled counterparts. There was no significant mean difference in career achievement depending on PSE-enrollment status.

E. Updated Analyses to Confirm Analyses with Less Missing Data Imputation

Due to large amounts of missing data from different time points during the course of the longitudinal study, separate analyses were run to examine differences in results with less missing data imputation. The updated method, results, and tables are presented in Appendix E. This different method was implemented to further examine whether less missing data imputation would alter or confirm conclusions found in the original analyses.
CHAPTER 6
DISCUSSION

This study examined the role of an ascribed adoptive identity in the development of a chosen career identity. The longitudinal design of the study enabled a closer look at how career development occurs over time for these adopted individuals, and how this process applies both to those who enrolled in post-secondary education and those who did not. There was partial support for the different study hypotheses, which will be discussed in the following section, with suggested future directions for research that are relevant to each study question.

A. Adoptive Family Resources, Age, and Career Exploration

The findings of this study indicated that both the age of the adopted adolescent and number of years of education acquired by the adoptive parents were significantly related to adolescent career exploration. Older adolescents (16 – 21 years old) in this sample engaged in more career exploration than younger adolescents (11 – 15 years old). These findings are consistent with existing literature and theory that indicate that individuals engage in more career exploration over time, leading towards some consolidation or commitment in this domain (Rogers & Creed, 2011; Schwartz, 2001).

The results showed that adolescents whose adoptive parents had more years of education engaged in more career exploration. Empirically, there has been much support pointing to the positive role that parental resources have for children’s occupational outcomes. The findings of this study are consistent with previous research showing that parents with higher education can offer more resources to their children, by way of providing advice about career and educational options, or economic resources towards
career development (Berrios-Allison, 2005; De Graaf, De Graaf, & Kraaykamp, 2009). Higher education can serve as a proxy for greater financial resources in the household, therefore allowing children to take advantage of more activities that can expand the breadth of career-related knowledge. For example, children may be able to attend camps, clubs, organizations, that pique what may interest them in terms of potential careers in the future. In addition, parents with higher education may also have more of their own first-hand knowledge and experience to share with their children about pursuing post-secondary education and obtaining jobs. These are a few examples of the processes involved in parents’ education facilitating more successful career development in children.

Most research that has examined the family role in adolescent or emerging adults’ career identity development has used samples with biological two-parent households. The current study findings add support towards greater parental resources as a positive factor for career development, in an adoptive family context. Going forward, it would be interesting to include who else in the adoptive kinship network may influence the career choices of the adoptee, other than the adoptive parents. For example, how might information about the educational and occupational background of birth parents inform the adoptee’s career explorations and eventual career decisions? What may happen when there is a disparity between the adoptive parents’ and birth parents’ educational and occupational backgrounds? It may be possible that this disparity leads to more adoptive identity exploration, or questioning of a fit between an adoptee’s own interests and his/her birth and adoptive parents’ interests. Furthermore, since these families were primarily White adoptive families who possessed higher education and household
income, it will be important to extend this research of adoptive families who come from lower-SES backgrounds, or other non-White minority backgrounds.

**B. Adoptive Identity Focus and Career Exploration**

One of the interesting and more exploratory questions in this study was the role of the individual’s adoptive identity focus and career exploration. Adoptive identity focus was assessed using the adolescents’ preoccupation with their adoptive history, and dissatisfaction with the level of contact with their birthmother. It was hypothesized that more focus on adoptive identity could either help and promote the exploration of career identity, or hinder this exploration. Collectively, these factors were not related to the level of adolescent career exploration. The findings suggest that during adolescence, adoptees’ thinking about their adoptive identity does not interfere with their career exploration process, and these may remain two distinct domains. This relationship did not differ for early or late adolescents; it was not necessarily that these adoption issues mattered more at an older age.

There are some sample-specific characteristics, and methodological considerations that can contribute to our understanding of these particular findings. First, the adoptions in this study were all domestic and same-race adoptions; the exclusion criteria for the study sample were transracial, “special needs” or international adoptions (Grotevant, McRoy, Wrobel, & Ayers-Lopez, 2013). Adoption researchers have identified issues unique to transracial adoptions, such as the transracial adoption paradox (Lee, 2003), bicultural identification (Friedlander, et al., 2000), and experiences of racial and ethnic aggression from others (Tigervall & Hubinette, 2010). In transracial adoptive families, the nature of visible differences between the adoptee and adoptive family
members can often bring up direct conversations about belongingness in the family, racial identity, and questions about birth family (Friedlander, 1999; Lee, 2003). If this study included international and/or transracial adoptions, adoptive identity may be more salient, and thus, have some consequences for explorations in other domains of identity, such as career.

On the other hand, the nature of this study including only same-race adoptions brings up some important considerations. In same-race adoptions, people outside the family may assume biological ties between the adoptee and the adoptive family. In a qualitative study using the same MTARP sample, adopted adolescents’ reported feeling their adoptive identity was left unseen and rarely discussed with others, including their family members (Garber & Grotevant, 2015). In this case, the lack of visible differences between the adoptee and adoptive family members perpetuated silence about adoption. More frequent adoption related conversations have been found to lead to more coherent adoptive identity narratives during adolescence and into emerging adulthood (Von Korff & Grotevant, 2011). Thus, if adolescents are grappling with their inner thoughts and preoccupations about their adoptive history, without articulating them to others, this area of their identity may remain “dormant”. Future research should delve deeper into this concept of one’s own focus on his or her adoptive identity, and expand this question to include different types of adoptions.

From a methodological standpoint, adjustments can be made to test an alternative model to the relationship between adoptive and career identity exploration. In the current study, a linear regression model was fit to the data. However, adoption exploration may be a non-linear process, which takes considerable re-evaluation over time. Use of non-
linear modeling might more accurately portray unique trajectories of identity exploration (Koepke & Denissen, 2012). For example, in a simple curvilinear model, an increase in one’s focus on their adoption may lead to increased career exploration. The emotional and mental resources geared towards focusing on one’s adoptive identity may bolster exploration of other areas of identity such as career. However, when these resources reach a “tipping point,” or the apex of the curvilinear model, this may then lead to a decrease in career exploration. This tipping point may resemble a turning point in which the level of preoccupation with adoptive identity takes away from one’s ability to explore career identity. Future studies should implement non-linear equation modeling to test this alternative hypothesis and model of multiple identity explorations.

C. Family Integration and Career Exploration

Family integration, or the level of claiming, entitlement, and acceptance reported by the adoptive parents, was collectively used to examine how the fit between the adoptive parents and adopted child, might have played a role in career exploration. Contrary to the study hypothesis, there was no significant relationship between family integration and career exploration.

The adolescents were adopted before their first birthday, so these families may not have had outstanding issues with feeling emotionally connected, or a lack of fit with the adopted child. The mean levels of claiming, entitlement and acceptance reported by the adoptive parents, were all above the middle of the possible range of scores, indicating that overall, this sample of adoptive parents felt relatively confident in their rights to parent the child, to have emotional and legal authority over the rights of the child, and that the adopted child was accepted as a part of the family unit (Cohen, Coyne, & Duvall,
It appears this sample of adoptees were integrated into supportive adoptive family environments at a very early age, and therefore, this factor did not play a role in the adoptee’s career identity development.

Empirical research has provided evidence that age of adoption is a factor in the psychological, relational, and physical outcomes of adoptees (Cohen et al., 2004; Julian, 2013; van den Dries, Juffer, van IJzendoorn, & Bakersmans-Kranenburg, 2009). Much of the research evidence is based on the experiences of children from international, institutionalized adoptions, children who have experienced maltreatment or other risky environments. This evidence has indicated that later age of placement, or adoption, is related to greater relational (van den Dries et al., 2009), social, and behavioral problems (Julian, 2013; Levy-Shiff, 2001). If this study included individuals who were adopted at an older age, it is possible there would be a different level of perceived family integration, and may consequently lead to changes in identity development on the part of the adoptee. Future research should continue to examine family-level psychological variables such as claiming, entitlement, and acceptance, in different types of adoptions (i.e., adoptions occurring at a later age, international adoptions), to provide a comprehensive picture of the context in which adopted individuals’ different identity exploration takes place.

D. Career Adaptability and Career Development

An advantage of this study was the ability to assess career development across multiple points in time. The second aim of the study was to examine how career exploration during adolescence was directly related to career achievement during adulthood, and if career adaptability during emerging adulthood mediated this
relationship. There was no evidence of mediation through career adaptability, however there was a direct negative relationship between adolescent career exploration and adult career achievement, and a positive relationship between emerging adult career adaptability and adult career achievement.

More adolescent career exploration was related to adopted adults reporting less satisfaction with their current jobs, less of a match between their current job and their career goals, and less of a perceived relation between their current job and career goals. This was somewhat surprising given that past empirical studies have most often found greater exploration to be positively related to better career outcomes (Koepke & Denissen, 2012; Mortimer, 2012; Vuolo, Staff, & Mortimer, 2012). Career exploration in depth and in breadth are, theoretically, ways of thinking more deeply and broadly about potential career options (Super, Savickas, & Super, 1996). It is possible that increased exploration does not help solidify one’s ideas of what he or she wants to do, and greater exploration actually confuses a person, and hinders the future consolidation of a career identity. If a person is engaged in more exploration during adolescence without any concrete plans or decision making, this can lead to that person having difficulty being able to identify specific goals and decide on a job that matches those goals.

Luckyx and colleagues encouraged researchers to treat exploration in depth and in breadth separately, as they found that exploration in breadth was negatively related to commitment making and identification with commitment, while exploration in depth was positively related to commitment making and identification with commitment (Luyckx, Goossens, Soenens, & Beyers, 2006). Thus, these two dimensions of exploration may be distinct, and have some opposing effects depending on the sequence in which they occur.
(Luckyx et al., 2006). In this study, exploration in breadth and depth remained a collective factor and, this may explain the negative relationship found between exploration and adult career achievement. It appears that career exploration, without any kind of set career goal to work towards, may keep individuals in an unstable period. This unstable exploratory process may hinder individuals’ ability to build the skills necessary to make decisions, or find a satisfying job that is relevant to their goals. It is also possible that the degree of exploration that takes place during adolescence may not be as relevant or helpful towards defining a career plan as it once was. As the transition into adulthood has been lengthening, the exploration occurring in emerging adulthood may be more much more important than exploration in adolescence.

More career adaptability during emerging adulthood was related to higher levels of career achievement outcomes, meaning individuals who were more adaptable in the face of changes in terms of career prospects, resources, and life circumstances, also reported higher satisfaction with their current jobs, and perceived a better match between their current job and overall career goals. This finding is consistent with Savickas’ update to Super’s theory of career development in that, greater adaptability is related to better career outcomes because people can be more flexible, and can plan or explore their options in the face of circumstantial changes or challenges (Savickas, 1999). In a more recent study, Han and Rojewski (2015) found similar results in a sample of Korean-born emerging adults living in Korea; those who had higher career adaptability were more satisfied with their jobs. This is important to note because today’s emerging adults are faced with economic circumstances that provide a lot of potential challenges, and may require more adaptability on the part of the emerging adult. The career options that are
available to emerging adults are vast, and this can be intimidating. The current findings indicate that individuals who are more apt to take advantage of available resources (e.g., mentors, past experiences, past education), and can create more specific and deliberate plans, can subsequently find jobs they describe as more satisfying, more relevant to their career goals, and match what they want to do.

E. Differences in Career Development by Post-Secondary Education Enrollment

The third aim of the study was to empirically examine potential differences in the career development process for adopted individuals based on their enrollment in post secondary education. The “forgotten half”, or emerging adults who are not enrolled in post-secondary educational institutions, have been left out of our empirical knowledge base, and therefore, it was important to include post-secondary education enrollment as a potential moderator of the career development process. The findings indicated that the predicted relationships between career exploration, adaptability, and achievement, did not differ by post-secondary education enrollment. There were, however, significant mean differences between these groups in the level of career exploration during adolescence and emerging adulthood adaptability. Individuals who were enrolled in post-secondary education during emerging adulthood had engaged in more career exploration during their adolescence, and also reported more adaptability, compared to their counterparts who were not enrolled in post-secondary education. There were no mean differences in career satisfaction during adulthood for those who were college-enrolled or not during emerging adulthood.

Post-secondary education enrolled individuals had engaged in more career exploration during adolescence. During adolescence, one of the options that these
adopted individuals explored and eventually pursued may have been post-secondary education. The greater degree of exploration that occurred during adolescence may have been a contributing factor to the eventual enrollment in post-secondary education. Furthermore, those enrolled in post-secondary education during emerging adulthood had higher levels of career adaptability compared to those not enrolled in post-secondary education. Post-secondary institutions often provide professional development related resources such as career centers and opportunities to establish relationships with faculty or graduate students. Thus, having more of these resources at their disposal could have facilitated greater adaptability – the ability to plan, explore, and make decisions about their career. On the other hand, those who were not enrolled in post-secondary education may not have had the “safety net” to consider alternative career plans in the face of changes, or the resources available in post-secondary educational institutions.

Career exploration appears to be helpful as a first step in considering options for potential educational pursuits (such as post-secondary education), but not necessarily a precursor to being prepared to make plans or decisions that lead to eventual success or satisfaction in chosen careers. Also, exploration of career options does not necessitate being more adaptable to changes later during emerging adulthood. Secondly, post-secondary education can facilitate more career adaptability and in turn, can help lead to better career outcomes. The implication of these career-related findings will be discussed in the next section.

**F. Implications**

One of the strengths of this study is that the practical and theoretical implications of the study findings can span broadly to those who are engaged in practice or research
related to identity development, adoption issues, career counseling, or professional development.

1. Implications for Identity Research and Practice

First, the focus of this study was to examine the interaction of different domains of identity, with an eye towards issues of adoption. When empirically studying identity, it is important to continue working towards a broad and multidimensional approach towards this construct. Identity development is complex, and while some issues are related to one another, it is not safe to make assumptions that individuals who identify with a certain ascribed identity, such as adoption, always have “issues” that will necessarily hinder the development of other domains of their lives. In this case, career exploration during adolescence was unrelated to individual focus or attention towards their adoptive identity, and this finding mirrors the aforementioned point. Given the dearth of research that has intentionally examined the intersection of multiple identity domains, this is a contribution towards our understanding of how ascribed adoptive identity is related to chosen career identity development during adolescence. People working with individuals with non-dominant identities should remain mindful of multiple intersecting identities, and the roles that these respective identities have on one another. In a similar vein, Flum and Blustein (2000) posed the question: “to what extent does exploration in one domain of life space influence exploration and knowledge acquisition in other life domains?” (Flum & Blustein, 2000, pp. 400) and encouraged researchers to include this question into the research agenda of identity. For example, Syed (2010) empirically tested the role of academic identity and ethnic identity integration. Also, to stretch our thinking about
identity development, it is important to remember that the salience of different identities may ebb and flow at multiple points across time, and may look less linear in nature.

2. Implications for Career Development Theory and Practice

The longitudinal approach towards career development shed light upon a couple of important points that can help us re-think how to counsel or mentor individuals in the career development process. Career exploration during adolescence was negatively related to later career achievement outcomes. While this was somewhat surprising, it challenges a common assumption that exploration is always adaptive. Today’s emerging adults who exist during an especially challenging social and economic context, may need to be more intentional about the level of exploration they are engaged in, and consider to what extent this exploration is useful and when it may become a hindrance to career identity consolidation. The message that adolescents and emerging adults should, and can explore for exploration’s sake, can potentially mislead individuals into career paths that were not intentionally chosen, or can take away from skills needed to plan and adapt according to shifts and challenging circumstances (Flum & Blustein, 2000; Savickas, 2011). Therefore, since making decisions about a career does necessitate a level of exploration, it is important to distinguish between explorations that are helpful or hindering from the career development process.

Career adaptability was positively related to later career achievement. This may be a focal construct that should be attended to more intentionally and explicitly, both in practice and research. Those who work with adolescents and emerging adults, should inform students or clients, about how to plan and make decisions in the face of changes, such as those taking place in today’s economic context. When faced with several
explored options, individuals want to gear this exploration in a productive manner that can intentionally lead to a match between their chosen jobs and their long term goals. Emerging adulthood may be thought to be an “institutional moratorium”, but this can provide some danger for those who are not prepared to eventually make decisions, or commit to some plans. Savickas presented a new “paradigm” towards vocational psychology, and stated that in our current social context, the perspective on career needs to take into account “chaos” or “happenstance” (Savickas, 2011). The idea of “employability” rather than “employment” can broaden the scope of counseling for emerging adults, and focus attention towards building skills needed to adapt to multiple jobs or educational settings, and treat life as “pliable” (Flum & Blustein, 2000).

Keeping in mind the relevance of the historical context of these findings, the participants in this study were interviewed as emerging adults during 2005-2008, when the economy took a significant downturn. Prior to this time period, adopted adolescents engaged in career exploration during a much more positive economic climate. The findings in this study illustrated how the process of career development through career exploration, career adaptability, and career achievement, was unfolding about a decade ago. These career developmental issues remain relevant today and may be even more pressing going forward. The present day economic circumstances are such that emerging adults have to be adaptable to possibly needing to hold multiple jobs at a time, or “trying out” various jobs before settling down into a career.

3. Implications for “The Forgotten Half”

As for the question of differences in post-secondary education enrollment, the study results suggest that in this sample, the career development process in post-
secondary education did not differ from those enrolled in post-secondary education. Therefore, these implications apply to individuals regardless of enrollment in these post-secondary institutions. Attention to more adaptability is needed, whether someone is going to enroll in post-secondary education or not. Interestingly, there were no mean differences in career achievement outcomes for those enrolled in PSE or not. Therefore, rather than focusing so much attention towards getting individuals to enroll in post secondary education, instead, overall adaptability should be encouraged and cultivated for all individuals, which can help emerging adults choose whatever paths are appropriate towards satisfying jobs that are relevant to their career goals (Chiang & Hawley, 2013). Career counseling models should shift to take into account the breadth of emerging adults’ experiences, goals, and socio-economic backgrounds, and not simply limit these resources to those in post-secondary educational contexts.

G. Limitations

There are strengths and important additions made by this study to the small empirical base of adoption literature and career development in non-college enrolled emerging adults, but there are some limitations of the current study to note. First, there are sample-specific factors that may have contributed to the findings related to adoption and career exploration, and it is important to pose the same empirical questions and attend to issues unique to domestic and international transracial identity development. In the research context of the United States, it is imperative to take into special consideration the experiences of individuals from non-dominant or majority identities experiences. Especially when researching issues related to identity development, and given the multifaceted nature of identity, research questions should ask empirical
questions that incorporate multiple identities (e.g. ethnicity, nationality, sexuality, gender, social class, ability).

Next, methodologically, this study was wholly quantitative in nature and information from the qualitative interviews were quantified into discrete scores to measure career exploration and career adaptability. A challenge for the next iteration of this study, or a related future study is to incorporate multiple methods, taking advantage of available qualitative data. On the other hand, a methodological strength of this study was the use of multiple reporters (both adopted individuals and their birth mother and birth fathers), and multiple time points, which made the empirical examination of the research questions possible.

Career adaptability was coded from the qualitative interviews, and a novel coding scheme was developed specifically for this study. This procedure of developing a new coding scheme was necessary to measure career adaptability, and provided us the ability to follow the course of adopted individuals’ development of career identity over three time points. However, the domains of career adaptability included both planning and exploration, which appears a face value to overlap with the exploration occurring during adolescence. There were no significant correlations between values of exploration in adolescence and scores of adaptability (planning and exploration items), therefore, statistically, these variables were distinct from one another. Going forward, it will be important to test the generalizability and validity of the adaptability coding scheme with another sample of individuals.

Due to missing data and attrition across multiple waves of data, missing data were imputed for analyses. The sample size was relatively small for a quantitative study;
therefore, the power to detect significant relationships or differences was reduced. As is true with any quantitative study, or those with smaller sample sizes, the findings of this study, therefore, must be taken with caution. Despite aforementioned limitations, the strengths of this study should not be overlooked.

**H. Conclusion**

Looking forward, future studies should continue to fill the gap in literature in identity research incorporating multiple domains of identity, and studies on the forgotten half. Research agendas that help adolescents and emerging adults progress towards building a coherent meaning of “who they are” can contribute to positive psychosocial outcomes – including something such as career development, that is often so intimidating when the breadth of options appears vast. The number of ideal options can appear vast, but the actual availability of employment opportunities are limited. Today’s emerging adults who are transitioning through a life period with so much instability and possibility, can benefit from some structured and supportive environments that help them investigate career options with intentionality and individualize their paths in intentional ways.
<table>
<thead>
<tr>
<th>Time</th>
<th>Participating Adoptees</th>
<th>Measures Used in this Study</th>
</tr>
</thead>
<tbody>
<tr>
<td>Recruitment</td>
<td>190 adoptive families with 1 target child per family</td>
<td></td>
</tr>
<tr>
<td>Wave 1 1986–1992</td>
<td>N=171 participating children N=19 nonparticipants (child too young for valid interview – 8, parent requested that child not be interviewed – 9, child refused – 1, equipment failure – 1)</td>
<td>Adoptive parents’ highest level of education Psychological Parenting Questionnaire Adoption Dynamics Questionnaire (Preoccupation with Adoption subscale) Coded ratings of emerging adults’ satisfaction with openness arrangement with birthmother Coded ratings of adoptive adoptees’ career exploration</td>
</tr>
<tr>
<td>Wave 2 1996–2001</td>
<td>N=156 participating adolescents N=34 nonparticipants (divorced – 3, adjustment problems with the adopted adolescent – 9, did not want to discuss personal, family, or adoption-related issues at this time – 18, too busy to schedule – 4)</td>
<td></td>
</tr>
<tr>
<td>Wave 4 2012-2014</td>
<td>N=114 participating young adult adoptees</td>
<td>Satisfaction with current job Degree of match between current job and long-term career goals Relation between current job and long-term career goals</td>
</tr>
</tbody>
</table>
Table 2
Demographic Characteristics Of Participants at Wave 2

<table>
<thead>
<tr>
<th></th>
<th>Adolescents</th>
<th>Adoptive Mother</th>
<th>Adoptive Father</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age (years)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mean</td>
<td>15.73</td>
<td>47.4</td>
<td>49.3</td>
</tr>
<tr>
<td>SD</td>
<td>2.08</td>
<td>3.51</td>
<td>3.74</td>
</tr>
<tr>
<td>Range</td>
<td>11 – 20</td>
<td>40 – 57</td>
<td>40 – 60</td>
</tr>
<tr>
<td>Years of Education</td>
<td>9.3 years</td>
<td>15.1 years</td>
<td>16.3 years</td>
</tr>
<tr>
<td>Post Secondary Enrollment*</td>
<td>89</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Non-Post Secondary Education Enrolled</td>
<td>88</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Post secondary enrollment and non-post secondary enrollment are for adopted participants at Wave 3.

Note. Age and years of education are presented for participants at Wave 2. *Post secondary enrollment and non-post secondary enrollment are for adopted participants at Wave 3.
Table 3
Descriptive Statistics of Adoption and Career Latent Factors

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoptive identity focus</td>
<td>0.00</td>
<td>0.97</td>
<td>-1.75 – 2.87</td>
</tr>
<tr>
<td>Family integration</td>
<td>0.00</td>
<td>0.22</td>
<td>-.59 -.39</td>
</tr>
<tr>
<td>Parent education</td>
<td>0.00</td>
<td>1.33</td>
<td>-3.78 – 3.07</td>
</tr>
<tr>
<td>Adolescent career exploration</td>
<td>0.00</td>
<td>1.30</td>
<td>-2.59 – 3.33</td>
</tr>
<tr>
<td>Emerging adult career adaptability</td>
<td>0.00</td>
<td>0.29</td>
<td>-.75 -.64</td>
</tr>
<tr>
<td>Adult career achievement</td>
<td>0.00</td>
<td>0.53</td>
<td>-1.31 -.73</td>
</tr>
</tbody>
</table>

*Note.* N = 177. Variables are latent factor scores created in LISREL using multiple indicators.
Table 4  
Descriptive Statistics of Adoption and Career Indicators

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoptive father education (years)</td>
<td>16.31</td>
<td>2.54</td>
<td>9.00 – 22.00</td>
</tr>
<tr>
<td>Adoptive mother education (years)</td>
<td>15.08</td>
<td>2.32</td>
<td>9.00 – 20.00</td>
</tr>
<tr>
<td>Parents’ claiming of adoptee</td>
<td>3.53</td>
<td>0.34</td>
<td>2.29 – 4.00</td>
</tr>
<tr>
<td>Parents’ entitlement of adoptee</td>
<td>3.22</td>
<td>0.35</td>
<td>2.00 – 3.87</td>
</tr>
<tr>
<td>Parents’ acceptance of adoptee</td>
<td>3.28</td>
<td>0.49</td>
<td>1.67 – 4.00</td>
</tr>
<tr>
<td>Preoccupation with adoption parcel 1</td>
<td>2.22</td>
<td>1.12</td>
<td>0.00 – 5.06</td>
</tr>
<tr>
<td>Preoccupation with adoption parcel 2</td>
<td>2.16</td>
<td>1.22</td>
<td>0.00 – 5.81</td>
</tr>
<tr>
<td>Dissatisfaction with contact with birthmother</td>
<td>1.74</td>
<td>0.99</td>
<td>0.00 – 4.00</td>
</tr>
<tr>
<td>Breadth of adolescent career exploration</td>
<td>2.20</td>
<td>0.78</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Depth of adolescent career exploration</td>
<td>2.29</td>
<td>0.81</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Career adaptability planning item 1</td>
<td>1.03</td>
<td>0.73</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability planning item 2</td>
<td>1.17</td>
<td>0.58</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability planning item 3</td>
<td>0.98</td>
<td>0.60</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability planning item 4</td>
<td>0.89</td>
<td>0.70</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 1</td>
<td>1.56</td>
<td>0.59</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 2</td>
<td>1.16</td>
<td>0.78</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 3</td>
<td>1.07</td>
<td>0.70</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 4</td>
<td>1.24</td>
<td>0.61</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 5</td>
<td>1.35</td>
<td>0.62</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 6</td>
<td>0.93</td>
<td>0.64</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Career adaptability exploration item 7</td>
<td>1.23</td>
<td>0.64</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Adult career achievement job satisfaction</td>
<td>4.05</td>
<td>0.81</td>
<td>1.00 – 5.00</td>
</tr>
<tr>
<td>Adult career achievement job match</td>
<td>3.71</td>
<td>1.15</td>
<td>1.00 – 5.00</td>
</tr>
<tr>
<td>Adult career achievement job relation to goal</td>
<td>2.32</td>
<td>0.76</td>
<td>1.00 – 3.00</td>
</tr>
</tbody>
</table>

*Note.* N = 177.
Table 5
Correlation of Adoption and Career Exploration Indicators at Wave 2

<table>
<thead>
<tr>
<th>Predictors</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. AM Education</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. AF Education</td>
<td>0.46*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. AM Claiming</td>
<td>-0.14</td>
<td>-0.23*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. AM Entitlement</td>
<td>-0.03</td>
<td>-0.08</td>
<td>0.49*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. AM Acceptance</td>
<td>-0.28*</td>
<td>-0.21*</td>
<td>0.47*</td>
<td>0.45*</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Preoccupation Parcel 1</td>
<td>-0.01</td>
<td>-0.07</td>
<td>-0.07</td>
<td>-0.07</td>
<td>-0.04</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Preoccupation Parcel 2</td>
<td>-0.02</td>
<td>-0.13</td>
<td>0.02</td>
<td>-0.05</td>
<td>-0.02</td>
<td>0.88*</td>
<td>-</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Dissatisfaction w/ Contact BM</td>
<td>-0.06</td>
<td>-0.12</td>
<td>0.04</td>
<td>-0.07</td>
<td>-0.08</td>
<td>0.46*</td>
<td>0.56*</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>9. Breadth of AA Career Exploration</td>
<td>0.06</td>
<td>0.06</td>
<td>0.10</td>
<td>0.03</td>
<td>0.02</td>
<td>0.13</td>
<td>0.09</td>
<td>0.06</td>
<td>-</td>
</tr>
<tr>
<td>10. Depth of AA Career Exploration</td>
<td>-0.14</td>
<td>0.05</td>
<td>0.08</td>
<td>-0.02</td>
<td>0.12</td>
<td>0.06</td>
<td>0.01</td>
<td>-0.02</td>
<td>0.63*</td>
</tr>
</tbody>
</table>

Table 7
Final Regression Model of Adoption Variables and Career Exploration During Adolescence

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized coefficient</th>
<th>SE</th>
<th>Standardized coefficient</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoptive identity focus</td>
<td>.083</td>
<td>.101</td>
<td>.062</td>
<td>.411</td>
</tr>
<tr>
<td>Family integration</td>
<td>.260</td>
<td>.470</td>
<td>.044</td>
<td>.581</td>
</tr>
<tr>
<td>Parent education</td>
<td>.102</td>
<td>.077</td>
<td>.105</td>
<td>.191</td>
</tr>
<tr>
<td>Constant</td>
<td>9.68 E^{-10}</td>
<td>.098</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td>.013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td>1.723, p = .191</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 177. Coefficient values are based on a multiple linear regression of latent factor scores created in LISREL using multiple indicators.*
Table 8
Final Regression Model of Adoption Variables and Career Exploration, with Adolescent Age Group Covariate

<table>
<thead>
<tr>
<th></th>
<th>Career Exploration</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized coefficient</td>
<td>SE</td>
<td>Standardized coefficient</td>
<td>p</td>
</tr>
<tr>
<td>Adoptive identity focus</td>
<td>.055</td>
<td>.094</td>
<td>.041</td>
<td>.562</td>
</tr>
<tr>
<td>Family integration</td>
<td>.294</td>
<td>.439</td>
<td>.050</td>
<td>.504</td>
</tr>
<tr>
<td>Parent education</td>
<td>.153</td>
<td>.073</td>
<td>.157</td>
<td>.037</td>
</tr>
<tr>
<td>Age group</td>
<td>.968</td>
<td>.187</td>
<td>.370</td>
<td>.000</td>
</tr>
<tr>
<td>Constant</td>
<td>.563</td>
<td>.142</td>
<td>3.975</td>
<td>.000</td>
</tr>
<tr>
<td>Total R²</td>
<td>.147</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td>26.893, p &lt; .001</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 177. Age group is based on early adolescents (age 11-15.99 years; n = 103) and late adolescents (age 16 – 21 years; n = 74). Coefficient values are based on a multiple linear regression of latent factor scores created in LISREL using multiple indicators.
Table 9
One-Way ANOVA of Career Exploration by Adolescent Age Groups

<table>
<thead>
<tr>
<th>Career Exploration</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early adolescent</td>
<td>103</td>
<td>-.385</td>
<td>1.309</td>
<td>24.683*</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>74</td>
<td>.536</td>
<td>1.144</td>
<td></td>
</tr>
</tbody>
</table>

*Note. Early adolescents (age 11-15.99 years) and late adolescents (age 16 – 21 years). *p < .01
Table 10
Model Coefficients for Mediation Model of Career Exploration, Adaptability, and Achievement

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration $a$</td>
<td>.011</td>
<td>.017</td>
<td>.450</td>
<td>$c'$</td>
<td>-.114</td>
<td>.028</td>
</tr>
<tr>
<td>Adaptability $b$</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>.756</td>
<td>.123</td>
</tr>
<tr>
<td>Constant</td>
<td>.000</td>
<td>.022</td>
<td>1.00</td>
<td></td>
<td>.000</td>
<td>.035</td>
</tr>
</tbody>
</table>

$R^2 = .003 \quad F(1, 175) = 457 (p = .450)$

$R^2 = .231 \quad F(2, 174) = 26.200 (p < .001)$

Note. Model coefficients are unstandardized values based on latent factor scores entered into mediation model. $a, b, c'$ are notations for each of the paths in the mediation model.
Table 11
Model Coefficients for Conditional Process Model of Career Exploration, Adaptability, and Achievement, by Post-Secondary Education Enrollment Status.

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
<th></th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration a</td>
<td>-.022</td>
<td>.025</td>
<td>.379</td>
<td></td>
<td>-.098</td>
<td>.041</td>
<td>.019</td>
</tr>
<tr>
<td>Adaptability</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>b</td>
<td>.808</td>
<td>.163</td>
<td>&lt;.001</td>
</tr>
<tr>
<td>PSE status</td>
<td>.121</td>
<td>.044</td>
<td>.007</td>
<td></td>
<td>.008</td>
<td>.075</td>
<td>.919</td>
</tr>
<tr>
<td>Explore x PSE</td>
<td>.042</td>
<td>.034</td>
<td>.218</td>
<td></td>
<td>-.031</td>
<td>.057</td>
<td>.586</td>
</tr>
<tr>
<td>Adapt x PSE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td></td>
<td>-.125</td>
<td>.262</td>
<td>.635</td>
</tr>
<tr>
<td>Constant</td>
<td>-.067</td>
<td>.031</td>
<td>.032</td>
<td></td>
<td>.005</td>
<td>.053</td>
<td>.930</td>
</tr>
</tbody>
</table>

$R^2 = .052 
F(3, 173) = 3.173 (p = .026) 
R^2 = .234 
F(5, 171) = 10.440 (p < .001)$

Note. Model coefficients are unstandardized values based on latent factor scores entered into process model. PSE = Post-secondary education status. $a, b, c'$ are notations for each of the paths in the conditional process model.
Table 12.
One-Way ANOVA for Career Exploration, Adaptability, and Achievement by Post-Secondary Education Enrollment Status

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Career exploration</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.307</td>
<td>1.281</td>
<td>10.640*</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.311</td>
<td>1.240</td>
<td></td>
</tr>
<tr>
<td><strong>Career adaptability</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.060</td>
<td>.248</td>
<td>8.011*</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.061</td>
<td>.314</td>
<td></td>
</tr>
<tr>
<td><strong>Career achievement</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.014</td>
<td>.539</td>
<td>.733</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.014</td>
<td>.533</td>
<td></td>
</tr>
</tbody>
</table>

*Note. PSE = Post-secondary education enrollment (n = 89) and Non-PSE (n = 88).
*p < .001
Figure 1a. Conceptual diagram of adoption predictors and career exploration.

Figure 1b. Conceptual diagram of mediation in career development.

Figure 1c. Conceptual diagram of conditional process model in career development.
Figure 2. Mean differences in career exploration for early and late adolescents.

Figure 3. Mediation model of career exploration, adaptability, and achievement
APPENDIX A

EXCEPRT FROM MTARP CODING MANUL FOR IDENTITY IN ADOPTED ADOLESCENTS AT WAVE 2

Minnesota / Texas Adoption Research Project

This manual provides guidelines for rating several aspects of identity development in adopted adolescents. It was compiled specifically for use in the Minnesota / Texas Adoption Research Project, in which adopted adolescents and siblings in 190 adoptive families were interviewed about aspects of identity in the domains of occupational choice, friendships, religious beliefs or spirituality, and adoption. The manual includes aspects of four coding systems:

The section on rating identity exploration in the domains of occupation, religion, and friendships was adapted from the identity coding manual of Grotevant and Cooper (1981), which had been adapted from the identity status manual of Marcia (1964).

General Coding Guidelines

Coder Expectations
You will be working an agreed-upon number of hours per week. We do ask that you not code too many tapes at one sitting. This helps us maintain reliability, because fatigue can reduce accuracy of coding. Your help on our project is important. We need you and want you to enjoy working with us. If you have any questions about rating the tapes, or about the project in general, please come in and talk with us.

Training Procedures for Identity Interview Coders
1. Read this manual and the assigned articles on reliability.
2. Group meeting to discuss rating procedures, reliability, and answer questions on the manual.
3. Listen to criterion tapes while following transcripts and reviewing the ratings provided.
4. Meetings to rate several tapes together (ratings done in advance by experts).
5. Rate 5 reliability tapes independently.
6. Decision: For each coder -- is more training needed?
7. More training or code tapes.
8. Random reliability checks throughout -- more training, if necessary.
9. Meeting every week to code a tape together (ratings done in advance by experts).

Previewing Transcripts and Tapes
Coders should become very familiar with the transcript and tape prior to coding a particular adolescent’s interview. Coders should first read through the transcript. After reading the transcript, the coder should listen to the audio-tape, following along on the transcript. Coders are expected to make notations on the note-taking sheet, indicating question numbers that justify coding decisions.

Order of coding
Following is the coding sequence:
1. Identity Exploration
   a. Occupation
   b. Friendship
   c. Religion
d. Adoption

2. Adoptive Identity Affect, Connections, Salience, and Guardedness
   a. Valence of Affect
   b. Relationship Connections
   c. Salience
   d. Guardedness

3. Narrative Coherence of adopted adolescent
   a. Internal Consistency
   b. Organization
   c. Flexibility
   d. Congruence between Affect and Content

4. Relationship Expectations
   a. Relationship Expectations – Adoptive Family
   b. Relationship Expectations – Birth Family

**Using the note-taking sheets**

For each interview, all appropriate note-taking sheets must be completed. These should be completed while reading the interview and listening to the tape. The note-taking sheets have two purposes. First, they allow the coder to keep track of an adolescent’s responses so that coding decisions are easier to make. Second, they provide documentation of the evidence you are using to assign your codes. It is very important that the responses be written down as completely as possible. For example, when coding the identity exploration section, if the adolescent names six qualities he or she looks for in a friend, each of those six qualities should appear on the note-taking sheet. This will enable us to conduct future analyses of the questions listed without replaying every tape. The note-taking sheets also help the coder make coding decisions and will be useful in the coding consensus process. The key questions used in making these decisions appear on the sheet. Thus, the coder is able to review the interviewee’s actual responses rather than having to rely on his or her memory of what was said. If you need to note something that does not fit into any of the items provided, please write it on an insight sheet.

The general procedure for rating tapes, then, is to listen to a section of the interview while reading the transcript, and write notes on the note sheet. When that section of the interview is over, review the note sheet to determine the ratings for that section. Refer to the manual as necessary here. (We find that referring to the manual often is very useful and helps raters maintain reliability.) Mark your ratings on the rating sheet before beginning to listen to the next section of the interview. A subset of the identity tapes will be rated independently by a second coder. Reliability will be calculated by comparing the two independently made ratings. When disagreements occur, coders will need to discuss and defend their ratings and then decide together on the best rating.

Codes "8" and "9" exist for all scales. Code "8" means that the coder is unable to rate this particular scale due to a mechanical problem (audiotape has an echo, or there is a blank spot in the middle). Code "9", however, means that the coder is unable to rate the particular scale due to lack of clarity in the content of the interview, or if the matter being rated simply did not come up in the interview, in a way that makes it impossible for the rater to determine a code
Section I: Coding Identity Exploration

Procedures
The interview is divided into four sections: occupation, religion, friendship, and adoption. Each of these sections is rated separately for amounts of breadth and depth in exploration. All ratings are recorded on the code sheet.

It is essential that the people rating the Identity Interview understand the criteria for each point on the exploration breadth and depth scales. This manual will be your primary source for learning that information. We are confident that if you follow the guidelines given here, you will have no trouble achieving the reliability we need.

In order to rate each adolescent’s interview as objectively as possible, it is important that you consider only the interview itself and not other factors (such as how that person performed on other tasks we are using, or any of the hypotheses of the project). Rate adolescent’s current experience; do not make assumptions about prior exploration or make adjustments for the age of the adolescent.

Making the ratings
Coders should be aware that the exploration ratings are designed to capture two types of information only: first, how wide a variety of options has the adolescent explored (breadth), and second, to what degree or level has the adolescent explored the topic (depth). For this reason, we are concerned with the broad picture of the individual’s overall perspective when assigning ratings.

Two basic questions underlie the rating scales and should be kept in mind when coding. Each applies to one of the scales used in the ratings.

1. Has the adolescent actively considered any options in the topic being discussed, and if so, how many? This question applies to exploration, and indicates breadth, or lack of breadth of exploration.

2. Considering the issue(s) the adolescent has explored, how deeply has he or she explored the option they have considered the most? This question applies to exploration, and will give indications of depth of exploration.

There are two components to the process of exploration: 1) a focus on choices within the interview topic (occupation, friendship, religion, and adoption), and 2) the actual exploratory activities used to investigate the choices.

All the choices the adolescent discusses should be considered in the rating. These are options or philosophies he or she has personally considered. In the area of occupation, these may be specific occupational choices (firefighter, physician, etc.) or broader interest areas (“I want to do something in biology”, for example). For friendship they may be different kinds of friends or different philosophies of friendship.

For the purposes of this interview, exploration is defined as consideration of choices actively initiated by the adolescent. For example, the young person who decided to visit several different churches in order to find out more about them would be given credit for exploration. In contrast, the adolescent who simply went along with his or her parents to several different churches (but did not explore or reflect on these experiences or their meaning) would not be given credit.
Exploratory activities are the means by which the adolescent investigates choices. Examples include, but are not limited to: reading, talking with other people and attending programs on the topic, spending time with the person at the worksite (shadowing). All the activities mentioned by the adolescent must be considered in making the rating. Exploration may also be indicated by an adolescent’s stated contrast between past and present thinking (e.g., “I used to think X, but now I think Y because…”).

**Breadth of exploration** is the degree to which the adolescent indicates exploring multiple choices and options. Breadth is indicated by evidence of consideration of different ways of thinking about friendships, religion, occupation, and adoption. An investigation into several different alternatives constitutes high breadth of exploration if each has been considered at least at a superficial level. For example, someone may have chosen a career goal from among very different careers.

**Depth of exploration** is the degree to which the adolescent explores the topic in that domain that he or she has considered in most detail. Depth is measured by the level of investigation into any specific topic and can be measured by the *clarity, intensity, or thoughtfulness* of the adolescent’s ideology about friends, etc. A deep investigation into a relatively narrow area may show high depth of exploration. For example, a person who states that he or she has always wanted to be a doctor and never considered anything else may get a high depth of exploration rating if different specialties within the field have been thoroughly investigated. Depth may also be indicated by statements such as, “I’ve read a number of articles on that subject”, or, “I’ve talked with several teachers of mine about this problem.”

The participant who has not considered any options will earn a rating of 1 on breadth. Likewise, an individual who has indicated a topic of interest but has not investigated that topic will earn a rating of 1 on depth.
The following section offers selected examples of breadth and depth ratings for the domains of occupation:

**Occupation**

1. Right now I want to look at a lot of areas. I don’t know for sure – haven’t picked one certain area. I’ve thought about meteorology, advertising, doctor, teacher, or coach – a very broad range. Those are just – a lot of them are hobbies and things I enjoy doing and I’m good at, so right now it’s just a matter of choosing which one I want to do for the rest of my life as a career. I wanted to be a physical therapist for about awhile – about a year. That’s what the main thing was, and I had my surgery, and went to the physical therapist afterwards and didn’t like it, so now it’s not something I want to do.

   Meteorology, I just think is so cool, just being, I can go outside and be able to tell you what’s going to be going on in two days from now and… I know. But I think that’s kind of neat. The movie “Twister”, man, that was exciting, you know, I loved that. But I’ve just always been interested in, and fascinated by that. As far as teaching goes, I think, I’m intelligent, and I can work well with kids of any age - with anything. And, so I always thought like, “Well, maybe.” Because I wanted to be a teacher when I was little, and I thought, “Well maybe I can take one of my other hobbies like-” at that point I was like, “Well, maybe I can take being a doctor and I can get that degree, and then I can get my teaching degree and teach other people how to be doctors.”

   You know, try and make something - because I couldn’t decide on one, and so, I mean as far as teaching goes, I just think I enjoy being around the people. Let’s see, coaching. I love athletics, and I like the intensity and the drive and, you know, love the smell of lidament. Yeah, it’s because it’s a life saver! Yeah, and I think I can get people pumped up, and I have a lot of experience to share and, so, there’s just - it’s all just experience, and, I think, I know I could be good at it. And it’s stuff I enjoy.

   Well, the advertising, well that’s a new field that we’re starting to look into. We as in my parents and I. It can’t - I had taken an SOI test earlier in high school, and got the results back, and it said I’m very creative and that something I might be interested in or might be good at, and my parents are - we’re trying to look into that and see what all’s involved in that. So, that’s a fairly new one. So, we’ll see about it.

   I’ve also considered physical therapist, which I’ve already listed. My goodness – lots of stuff, I guess. I’m trying to think. It’s been so many years. Radiologist. Surgeon or whatever. Basically doctoral-type stuff. Um, any other ones that I haven’t mentioned? Director of Christian Education (DCE). Um, (pause) I think that pretty much covers all bases.

   A problem with coaching would be the time constraints - being able to have a family and, you know, you’re spending a lot of late hours at work with the team, and a lot of hours on the road and that sort of thing. Same with being a doctor. You have so many extra years of schooling that you have to go through, and if you want to do something at the hospital, you would have residency and you would have all your internships and you’d may not have the best hours and that sort of thing. So, there’s a lot of constraints there as far as family goes. Meteorology, I don’t want to be put on TV! So, so, there’s somewhere I could go, just be the one to - like in the national weather center, look at all the maps and then tell them, “That’s me.” That I don’t want to be put on TV. Teacher...just a little lower salary. It’s not quite as high, you know, but it’s nothing that you can’t live on. You know, you can live comfortably on it, so it’s not that big a deal.

⇒ This adolescent would receive a four on breadth and depth.

2. Psychology is my major. And I haven’t decided yet what I want to do with that, but I want to definitely go to graduate school for something related – guidance counseling or something else that’s similar – it has to do with counseling, but it is in business – human resource
management. I’m still deciding on a specific career, but I’ve been wanting to do psychology since probably tenth grade. I’ve just kind of narrowed it down.

I started thinking about psychology when I took a psychology, like, class as part of a religion class in eleventh grade, and I was really, really interested in it and, you know my friends always told me, you know, they always came to me for advice and they loved that and, you know, one of my friends always called me her shrink as a joke.

Also, when I was in high school, I had like a really bad guidance counselor and that was a negative experience. I just thought, you know, you know how could I do this better, and I thought I could do a much better job that she did. You know I’d like to really be there for the kids and help them out instead of just you know pushing them through then not seem to care about them. Try to help them.

And for human resource management, my dad had told me about that. He said, you know this sounds really interesting cause I had I guess he mentioned it to me in high school, but I didn’t get really interested in it until college but um I was like yeah that does sound interesting and I went in, my aunt works at a business and she really likes her human resource manager, I met with her and talked to her about it and so that was a positive thing.

I guess I’m interested in this field because I’m really interested in people. I know, that like, I’ve taken personality tests and I’m an extrovert, which, you know, means that all my energy comes from other people, and I just feel more alive when I’m talking to people or with other people and it rejuvenates me, really it does, and I don’t know, I like to help people. I was interested in becoming a psychologist, but I really don’t want to go through all the schooling. Earlier I wanted to be a lawyer – I was in a pre-law fraternity in my first year in college, but I just kept hearing from lawyers and stuff and I just got really turned off from that career.

I think, yeah when I was, I was younger, probably – I mean I’m saying like elementary school – I wanted to be a social worker because it really intrigued me and I thought would, that’s what I wanted to do because I was adopted.

⇒ This adolescent would be rated a four in both breadth and depth.

3. I plan to major in communications and Spanish also – that would just give me a basic background, I think, with most of the stuff I’m going to be doing in my job. I guess, I’d like to travel, you know, but I don’t think the money is real good. Yeah, hopefully, by the time I graduate, I will have enough connections in working up ideas for myself in that area of television and then if I could cross over into film, that crossover, it’s just different, that would be all right, I think. I started working in the media stuff when in, like, grade school and I just had an interest in that from day one. And also film, also, I love film.

In regards to college, there was a teacher I had in school who worked in television and he’s the one who basically opened the door for me- let me stick my foot in and got me my first job and so forth. In high school, he set me up with good internships and job shadowing opportunities.

Also, the year that I just spent in Mexico, that really excited me about traveling, about Spanish, really learning the language and all and how to do well and so I think- more so than ever, I would like to get involved in some sort of field or career with the travel and get the opportunity to meet people from other countries – that got me excited about my career plans.

I’m not interested in working behind a desk and plus I like putting stuff together like that fascinating in television and in film both. I’d like to be a director, and I like working with people and I like that and then putting stuff together like that in a show, it’s exciting and it’s fun. Plus you’re unlimited with options with where you’re going. It’s your own field, with lots of stuff to do.

I’ve also considered teaching, and that’s not something I’m not going to give up on, not that I’ve given up in the first place, but it’s something I would like to do, maybe after an interesting career in film and television, after if I put in twenty years in television and film and then become
a teacher. Because I just think it’s cool to work with kids and I’ve had some cool teachers that have advised me in a job and the teachers that I’ve had and enjoyed were always teachers who brought something else to the classroom other than their teaching career.

I think I can work in film with a Communications degree but I don’t know if I can work in another related job with just a film degree. But again, just wanting to go to college, but on the other hand, I mean, job wise, I don’t know, at first when I got real interested in television and film, I said, “I want to do this,” they were, like, “Ok, great! Good to have you interested in that.” and then when I started getting jobs and getting paychecks, they were, like, “Oh, this is interesting, you can actually work and do that and get money- good money!”

It’s a tough field to get into, very tough, I mean the work that I’ve done, I can, well, just before I left, it started to really- the momentum, but it was few and far between and it’s a tough union, especially in film. Unions are impossible to get into. Plus it’s such an exciting field, there are a lot of people out there that are interested, I mean, I would have to, like, create something that would separate myself from the- for me to get the job. So I think it’s a tough field to get into. If things get difficult, I guess teaching is an option that I would seriously consider, or I don’t think I’ll have a problem getting into the field and getting work, but I want to move up, I don’t always want to do grip work and I know I could support myself, doing that, but not very well, and when I have a family, someday, I want to move up. Eventually, like I said, be a director, I want to be doing it. Even camera work, as well, but I want to move up in that, so.

⇒ This adolescent would receive a three on breadth and a four on depth.

4. Well, I’ve kind of always wanted to be a teacher, but it’s kind of just like been verified, I guess, in the last, like, year. Just like - because I became a student aid for my school. I go over to the elementary school which is right up here, and, you know, I work with him, and so that - then that kind of got me more interested in, you know, becoming a special ed. teacher, I guess, so. I’m also a personal care assistant for this kid with Down’s Syndrome, so I’m going to work with him two days a week.

I also want to be a teacher because I like kids. I really am a people-person, I mean I get along, you know, with people really well. So, you know, you obviously want to go into something that you’re good at.

I could see that parents could be a problem in special education. I mean, you know, not like - ad - you know, admitting to, you know, their kid has a lot - you know. Depends on what kind of, you know, special type of thing that they have. Make sure - I’ve always kind of wanted to, like, my principal or whatever, his - I work with his son also, and he has ADD, and you know, like a lot of that. And he’s just like, “I just can’t believe you’re going into that,” or whatever, he’s like, you know, it’s like, so crazy and everything, and I’ve kind of thought about wanting to like, change, the whole special education program type thing, we’re , like, you know, people get labeled, you know, kids get labeled with and put into the little pigeon-hole type things. And then that’s what kind of, you know, their whole life, they’re like, “Well, you know, now I’m a special needs kid,” or whatever, and so, I’ve kind of thought about, you know, doing something like, you know, changing that somehow, and not - I mean having it, you know, having special programs for them, but not like, making it seem really bad to them, you know, so.

I’ve also thought about being a flight attendant and photojournalist, yeah, I think that’s about it.

⇒ This adolescent would receive a two on breadth and a four on depth.

5. I want to be a professional baseball player, but every once in awhile I would just go into a little phase of “I want to do this. I want to do that.” One time I wanted to be a lawyer. I kind of wanted to be, like, a surgeon – doctor, police officer. As for majors in college, there’s a lot of
stuff I really like – political science, there’s some geography I like and health occupation kind of stuff.

I think the main reason I want to play baseball is just my love for the game. I also like being part of a team and enjoy hanging around with athletic people. Also, they make a lot of money. But it could be a problem that I wouldn’t spend as much time on education because I’d be practicing a lot. I mean, I’d still get my degrees and whatever. Because I’d want to be known as not just an athlete but as a scholar – school man – too, something like that.

⇒ This adolescent would receive a three on both breadth and depth.

6. I want to be a kindergarten teacher, just like my mom. I love little kids – I’ve just always liked them. I don’t really see any problems with it because I’m usually calm, and I usually can handle kids.

My mom’s excited if I become a kindergarten teacher. She’s like, “you can have all our stuff,” and everything.”

I’ve also considered something in a field like secretary because I like typing, and I’m really good at typing, but I don’t know. I’ve also always wanted to be a doctor or lawyer, but I don’t want to go to school that long.

⇒ This adolescent would receive a three on breadth and a two on depth.

7. I either want to major in agriculture or veterinary medicine. I’d use either one of these working on the ranch – like, if we have to pull a calf or treat one, I’d know what to do if something happened. I’ve wanted to do this ever since I was born. I like to drive tractors, and I like to be around cows and animals.

I’d say that my dad, my grandpa, my uncle, and his oldest son Danny have influenced my plans. My grandpa, he was always farming when he was little, and my dad, he worked for him. I mean, they farmed cotton and corn and stuff, and so it’s kind of a family tradition. Now, almost all of our family does it. And that’s what my uncle and them do, too – farm. We’ve moved on to ranching. But I know I need to go to college because it will educate me more in my field, and I know I can get a lot better job and get paid a lot more money if I go to college.

⇒ This adolescent would receive a two on breadth and a three on depth.

8. I’m majoring in dental hygiene, which will also be my career. I like that they make money – lots of money – and that you don’t have to go to school for seven years to do it, either. It only takes two years. But sometimes I wonder, “do I really want to look at somebody’s, in somebody’s mouth for the rest of my life?” Earlier, I considered physical therapy. That’s probably about it.

⇒ This adolescent would receive a two on both breadth and depth.

9. Hopefully, I’ll go off to college and major in science. I don’t know exactly what I’ll do, maybe become a biologist. I probably decided in, like, the sixth grade, just because I just think it’s interesting…field. I’ve also considered ski coaching or maybe a musician.

I don’t think there really was any influences on my future plans. It’s just my seventh grade teacher, science teacher, did a lot of biology with us, and I really liked it. I just like to get outside a lot, and I think it’d be fun working in the field. There’s probably not a very high demand for it right now. And it might be hard finding a job in that field. I’d probably stick with it, though. But, I don’t know. If after awhile it just didn’t work out, I’d probably study music a lot more.
10. I want to go to college and then go to one of these computer, like, computer college because I really enjoy computers and, like, video games and how they work and that. I think I’ll major in computers and, like, programming. My dad, he works at, like, he’ll get a new program and his job is to try to find ways to mess it up, so it’s pretty neat. I’d like to get a job kind of like my dad, so that loading into computers and that. He, like, is communicating with people, like, all over the world, so that’d be kind of fun.

I probably decided on it by the time I was in Middle School, I’ve wanted to work with computers, so… I’ve aced every computer class I’ve been through. I’m in advanced computering now – telecomputing – and I’m going to be in advanced telecomputing in the eighth grade.

My dad is an influence on me because his job just sounds so interesting to me and talking to all those people everywhere, and he’ll come home, and let’s say he got, like, a new type of phone card, one made, like in Europe or, like, London, so that type of phone call that nobody’s ever made, and I don’t know what that means, but it sounds neat. Computers just seem attractive because I love computers, and because I know it’s a boom. Like, what it can do, like generate light – all that stuff. It has everything except common sense.

I’ve never really considered anything else, except, you know, like, when you’re five, when you, like, want to be a policeman or fireman.

I think about the money because, I mean, once I get out of high school, I want to be able to go to college, but I still want to be able to – I want to go to a nice college and with the grades I get, I will be able to, but I’m not sure if I’ll be able to afford it because I’m just not sure what’ll happen. If I can’t, I’ll probably just try – I just – probably just get a minimum wage job or just try and work my way up. So I have enough to go to college and go on.

11. I think I’m going to go to college, but I don’t really know what kind of major I’d take up or what career I’d go into. I think it’s good to go to college, just because you have a chance to make, I don’t know, a better living for the future, I guess. If college became too hard, I’d probably go to a Vo-Tech and learn a trade, I guess, but I don’t know what.”
<table>
<thead>
<tr>
<th></th>
<th>OCCUPATION BREADTH</th>
<th>OCCUPATION DEPTH</th>
</tr>
</thead>
</table>
| **1** | **NO/MINIMAL**  
no/minimal evidence of exploration of occupational or career future  
minimal exploration of 1, list 2 | no/minimal evidence of depth in occupational future; no serious, reflective, or meaningful thinking about career alternative(s)  
basic likes/dislikes |
| **2** | **LOW**  
limited exploration; exploration of only a few career alternatives; consideration of at least one alternative or just naming a few job titles or choices with no elaboration | limited depth in exploration; little serious, reflective or meaningful thinking about career alternative(s) |
| **3** | **MODERATE**  
some exploration; exploration of several career alternatives either across or within fields | some depth in exploration; some serious, reflective or meaningful thinking about career alternative(s) |
| **4** | **GREAT**  
considerable exploration; exploration of many career alternatives | considerable depth in exploration; serious, reflective and/or meaningful consideration/exploration of career alternative(s) |

8. Can't code due to mechanical problems

9. Unclear/Can't Code

* Coding Convention: Code away from center points (i.e., if deciding between 3 and 4, code 4)
APPENDIX B

EXCERPT FROM MTARP CODING MANUAL FOR ADOPTED CHILD
OPENNESS AT WAVE 2
Minnesota/Texas Adoption Research Project

All of the following codes are based on the AC's description of the adoptive kinship network. Coders will read the adoption section of each transcript in its entirety.

OPENNESS VARIABLES

AC Feelings regarding BM

10. How satisfied is the AC with the level of openness occurring with the BM?

0 = very dissatisfied (e.g., “hate,” “really bothers me,” “sucks”)
1 = dissatisfied (e.g., “disappointed,” “don’t like,” “bad,” AC desires a new level of openness)
2 = neutral (e.g., “doesn’t matter,” “don’t care,” “the way things are”)
3 = satisfied (e.g., "fine," "good," "like")
4 = very satisfied (e.g., “awesome,” “excited,” “ecstatic,” “love”)
6 = mixed/ambivalent (moderate/strong satisfaction and moderate/strong dissatisfaction co-exist in a BALANCED manner)
8 = "I don't know" (e.g., AC claims that he/she does not have enough information upon which to form/base an opinion)
9 = uncodeable
APPENDIX C

CODING MANUAL FOR ADOPTED EMERGING ADULT CAREER ADAPTABILITY AT WAVE 3

Minnesota / Texas Adoption Research Project (MTARP)

Yesel Yoon, M.S., & Harold Grotevant, Ph.D. (UMass Amherst)

The Manual used by coders is in the transcript folder, along with coder training materials.

This manual provides guidelines for coding career adaptability for Wave 3 of the Minnesota / Texas Adoption Research Project, in which 169 adopted emerging adults from among the 190 adoptive families were interviewed about four areas of their identity: adoption, school and occupational plans, friendships, and religion or spirituality. This current manual is used in Wave 3 to code career adaptability of adopted emerging adults.
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Expectations

1. Coders are expected to understand and adhere to all MTARP confidentiality guidelines and procedures.

2. Coders are expected to attend training and on-going coder group meetings. Coders must reliably code at least two transcripts before coding independently.

   On-going coder training requires your input and participation. Coder meetings will take place while transcripts are being coded. Meetings help establish and maintain reliability and validity. Meetings will include on-going training activities such as:
   coding selected sections of transcripts, identifying appropriate dimension examples to add to the Manual, and discussing ongoing coding and consensus issues or problems.

3. Coders are expected to follow all procedures outlined in this Manual. If an aspect of coding is not working for you please bring it to the coder group meeting for discussion.

4. Coders are expected to complete coding and consensus as scheduled. If you cannot complete your coding assignments as outlined on your coding schedule, please notify the coding supervisor in advance.

5. Coders will receive feedback about their coding as a result of random W3 reliability checks. Reliability checks will take place as described in MTARP consensus and reliability procedures.

If you have any questions or problems throughout the coding process, please contact Yesel Yoon, yesel@psych.umass.edu. For more general questions related to the Rudd lab responsibilities and procedures, please refer to Rachel Farr, rfarr@psych.umass.edu.
Individual Coding Procedures

Materials Needed

Electronic Manual for Coding Career Adaptability
Electronic Transcript
Electronic Individual Scoring Sheet
Electronic Individual Tracking Sheet

Where to Find Documents

Copies of transcripts and a code sheet template will be placed in your coding folder in Dropbox.

Where To Save Electronic Documents

1. Save highlighted transcripts in your "CA [Your Initials] Transcripts" subfolder in your folder. Coded transcripts are named: [ID] [your initials] CA Coded.doc.

   example: 10204 YY CA Coded.doc

2. Save completed code sheets in your "CA [Your initials] Coding Sheets" subfolder in your folder. Code sheets are named [ID] [Your initials] CA Coding Sheet.doc.

   example: 10204 YY CA Coding Sheet.doc

4. Save your transcript and codes sheet frequently as you work so you do not lose your work.
   Be sure you fill in all items on the code sheet: codes, highlights, your initials, and the participant's identification number.

5. Save your codes in your “CA Individual Tracking Sheet [Your Initials]” in your folder. Be sure to fill in all items on the tracking sheet: participant’s identification number, your initials, date coded, item-level codes.
Individual Coding Procedure - continued

**Reading the transcript**

1. Locate the sections of the e-copies of transcript to code. In the Young Adult Interview, the School and Occupation section questions, the beginning point is “Are you in school?” always numbered question 1. The ending point is “What are the ways in which your being an adopted person enters into your occupational plans or decision-making?” with question 25. The content between these questions (1 through 25) are referred to as “the transcript”.

2. Skim the entire occupational section of the transcript thoroughly before coding to gain a sense of the whole.

3. Refer to the Coding Manual for the criterion definitions for each of the dimensions (Planning and Exploration)

4. Read the transcript again and examine specific questions that correspond to the scoring of each dimension (Planning or Exploration).

5. Copy specific passages/responses as evidence into the appropriate boxes on the code sheet. Type the appropriate question number next to the passage.

6. Complete the coding sheet for each transcript, and type notes and comments associated with the copied passages in your transcript (see below for more about note-taking).

**Use of Coding Sheet and Note Taking**

Complete the coding sheet for each transcript. Be thorough in your inclusion of examples and notes. The coding sheet will provide documentation of the evidence you are using to assign your codes. It is very important that the responses be written down as completely as possible. For example, when coding for career exploration, if the adolescent names three resources he or she has used to explore his or her career, each of those three resources should appear on the note-taking sheet. This will enable us to discuss questions listed without re-reading every interview.

Include copied passages with the accompanying interview question number. Note on your code sheet the reasons for choosing the passages. Without these notes, it will be hard to remember why you included this as evidence for your code and the rationale for your decisions without needing to re-read a transcript.
Assigning Codes

1. **Compare your evidence to the individual descriptions and examples in this Manual each time you code.** Referring to the Manual will help prevent coder drift. The Manual provides examples at each code level for each item. Each example includes the relevant passages that were found in the transcript for that item, including a rationale as to why the item was assigned the code level.

2. **Age of the participant should not be considered in choosing codes.** Criterion definitions, item coding levels and examples apply to all transcripts, independent of the age of the participant.

3. **Length of the transcript and responses to individual items should not be considered in choosing codes.** Apply descriptions and examples independent of the length of the transcript or the interview item response (see #7, below, if there is insufficient data to code).

4. **Avoid using personal experiences or bias as undocumented “evidence” when you code.** Your coding will be more accurate if you are aware of your assumptions and biases. When there is not a lot of information (for example, short responses to interview questions), do not overinterpret the existing information. Base your coding on the available evidence, and do not feel obligated to have to “give away” a code to a participant.

5. **Assign codes based on all the evidence.** Weigh evidence -- as defined by this Manual -- as a whole. One or two very intense statement may outweigh frequent statements of lower intensity. On the other hand, frequent statements indicating the absence of a dimension may outweigh a moderately or highly intense statement. The criterion definitions in the Manual for planning and exploration are provided as guidelines to assist your overall assessment of the coding levels. The criterion definitions and the scoring instructions (examples and rationale) will collectively help coders chose a code.

6. **What if you have trouble choosing a code?** Note the reasons you are having trouble and bring the issue to the coding team meeting for discussion. Write notes in your coding sheet. We may want to add examples to this Manual or have the transcript coded by several members of the team – some transcripts will be more challenging to code than others.

7. If a transcript or question yields no information on a dimension. Code it “88” on the coding sheet.
Coder and Consensus Training

Coders will code the same transcripts prior to our weekly meeting and come ready to share results, including codes, coding sheets, and coding rationale. Coding rationale should be based on the Coding Manual.

It is essential to refer to the Coding Manual while coding and consensing each and every transcript in order to internalize the constructs, definitions, and examples.

The purpose of this task is to understand each other’s rationale for selecting specific passages and assigning codes. It is not a competition to get the “right” codes. If we strive together to understand each other’s rationale we will reach a group decision “a group think” about choosing passages and codes that is thoroughly grounded in the Coding Manual. It is important that coders be willing to listen to the rationale behind coding decisions and work to learn from the experience. This process will help coders better understand variables and develop a sense of ownership. These factors work together to build confidence in coding ability.

Coders will refer to the Coding Manual to explain their rationale and to resolve differences. There are two types of differences to resolve: 1) choice of passages, and 2) choice of codes. If the Coding Manual does not clearly address the situation, the Coding Team Supervisor will revise the Coding Manual accordingly. Revisions will be limited to: 1) making coding decisions more explicit, 2) clarifying existing language, 3) adding examples, or 4) decisions about how to handle new situations. We will not change the meaning of dimensions or code levels. If you get stuck on an issue during consensus, please refer the issue to the Coding Team Supervisor for evaluation.

You may find that some dimensions descriptions in the Coding Manual do not match your personal definitions. You must willingly set aside your personal definitions and base decisions on the coding manual. In order to be valid and reliable all dimensions must be rated in the same manner by all coders.

Consensus allows coders to practice and receive feedback regarding their coding skills. By meeting together regularly, we will practice coding skills together. This helps ensure that we continue to apply the coding system correctly and consistently as outlined in the Coding Manual.

Coding will be frustrating at times. You will never completely master the skill of coding. Coding is similar to any activity, such as playing a musical instrument or sport. It is not possible to reach and maintain a level of excellence without continual practice. Excellent musicians or basketball players occasionally have an off day, miss a basket or play a wrong note. That is the reality of attempting to master a skill. Coding must be developed and maintained through study and practice.

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1 This section was adapted from the Rural Family Business Team Research Coding Manual.
Consensus Coding Procedures

Materials Needed

Electronic Manual for Coding Career Adaptability
Electronic Transcript
Electronic Individual Codesheet template
Electronic Individual Tracking Sheet
Electronic Consensus Codesheet template
Electronic Group Tracking Sheet

Where to Find Documents

Copies of transcripts and a code sheet template will be placed in your coding folder in Dropbox.

Where To Save Electronic Documents

1. Save highlighted transcripts in your "W3 CA Transcripts Coded" subfolder in your folder. Coded transcripts are named: [ID] [your initials] CA Coded.doc.

   example: 10204 YY CA Coded.doc

2. Save completed code sheets in your "CA [Initials] Coding Sheets" subfolder in your folder. Code sheets are named [ID] [your initials] CA Coding Sheet.doc.

   example: 10204 YY CA Coding Sheet.doc

4. Save your transcript and codes sheet frequently as you work so you do not lose your work.
   Be sure you fill in all items on the code sheet: codes, highlights, your initials, and the participant's identification number.

5. Save your codes in your “CA Individual Tracking Sheet NEW_[Initials]” in your folder. Be sure to fill in all items on the tracking sheet: your initials, participant’s identification number, date coded, codes for individual items.

6. Save completed consensus code sheets in the “CA Consensus Coding Sheets” folder in the group “CA Consensus Codesheets” folder. Code sheets are named [ID] CA Consensus Coding Sheet.doc.

   example: 10204 CA Consensus Coding Sheet.doc
Consensus Coding Procedures – continued

Reading the transcript:

1. Complete the same steps for individually assigning codes

Reviewing ratings with partner:

1. Meet with the coding partner to discuss ratings for all the items of planning and exploration

2. Assign one person within the pair to be the Note Taker per each transcript.

3. Discuss each individual item and why you rated it on the scale.

4. Note Taker:
   a. Complete Career Adaptability Consensus Sheet to document notes/decisions from the meeting.
   b. Document all individual and consensus ratings in the consensus sheet.
   c. If you cannot reach consensus for a dimension, write “NC” and highlight the cell.
Consensus Coding Behavior

The purpose of consensus meetings is to reach a common understanding of the coding manual. Because, by definition, consensus involves discussing codes where coders initially disagreed, these meetings have potential for interpersonal conflict. You can help reduce conflict by entering consensus with an open mind and working with other coders to better understand the Coding Manual. Remember, points of disagreement offer potential for learning. The process of clarifying differences will lead to insights—those ‘ah-ha’ experiences that help improve reliability and validity.

Effective Consensus Behavior

1. Be tolerant of individual differences in consensus meeting styles.

2. Be open to the other person’s point of view and ask for your partner’s input or opinion.

4. Do not give up before explaining your point of view.

5. Refer to the Coding Manual for all explanations and decisions.

6. Gently remind your partner to refer to the codebook when comments are not relevant to dimension descriptions. Be aware that your personal views or experiences might be influencing you.

7. Get personal conversations out of the way before starting the meeting.

8. Be respectful of the other person’s scores. Express your opinions as your own, not in a manner that tells the other person what they should be thinking.

9. Do not take score decisions personally. Look at consensus meetings as a way to sharpen your coding skills. Explain your thought process and refer to the Coding Manual; consensus is an opportunity to reinforce your understanding of the Coding Manual.

10. If there are two very different views, you might not be able to reach consensus, in these cases document your thinking and refer the transcript to the Coding Supervisor.

Ineffective Consensus Behavior

1. Changing a score without having appropriate evidence or reasoning.

2. Not using the manual to reach consensus.

3. Showing up late or not being prepared.
4. Being unable to justify your decision, but not letting go.

5. Using the “barter system” to arrive at score decisions, i.e., trading scores with your consensus partner.


7. Interrupting your consensus partner.

8. Taking score decisions personally instead of trying to gain a greater understanding of the coding system.

You are strongly encouraged to contact the Coding Supervisor to discuss any issue related to CA coding, such as ideas for coder training or issues related to group dynamics, assignments, due dates, consensus – anything! Please do not sit on an issue that is bothering you. The process will be more satisfying for you and for others if problems are resolved as soon as possible.
Definitions and Examples of Career Adaptability

Brief Definition: “The readiness to cope with the predictable tasks of preparing for and participating in the work role and with the unpredictable adjustments prompted by the changes in work and work conditions” (Savickas, 1997, p. 254). Savickas (1997) proposed three dimensions of career adaptability: planning, exploration, and decision-making.

Expanded Definition: This scale is designed to assess participants’ overall level of adaptability in pursuit of a career. This is meant to serve as a global interviewer rating of the participants’ competence with respect to the developmental task of making the transition from school to career and from adolescence to emerging adulthood. Participants who show a higher level of career adaptability should appear to have thought considerably about a work future and to have taken steps to pursue that career plan. Because of the transitional nature of the developmental period assessed here, career achievement will not be emphasized in making this overall rating. Current job status may serve as some indication of progress in this area, but should not be considered a primary criterion, especially if the participant’s current job does not appear to the coder to be a job to which the participant has made a long-term commitment or does not seem to fit the participant’s career goals. The coder should read the entire School/Occupational Identity section of the Adoptive Interview, and attend specifically to the responses to individual questions used to code for domains of career adaptability - planning and exploration.

Note about Cultural/Social Context: It is important to consider cultural and social contextual factors such as an individual’s socioeconomic status and background when assigning codes. For example, some individuals describe their career paths within the realm of a family business. If they do not discuss exploring other career paths, but have made decisions to move within the family business (taking on different roles, moving positions, assuming greater responsibilities), then this is indicative of career exploration (and may receive ratings higher than 1). For some of these individuals, staying within a family business is their ideal career option. Be wary of penalizing individuals with lower assigned codes for career planning and exploration (and ultimately, adaptability) when they may possibly have limited socioeconomic resources.
Occupational Section of Interview Questions

1. Are you in school?
   → **Probe:** *If no:* Have you ever attended college or technical school?

2. What is / was your major field or primary area of study?

3. How did you come to decide on _____ as a major field?
   → **Probe:** When did you first become interested in (major field)?
   → **Probe:** What do you think influenced your choice to go into (major field)?

4. What do you find attractive about this field?

5. What drawbacks do you see about the field?

6. Have you thought about other majors / fields?
   → ** Probe:** *If yes:* Why did you decide not to pursue this other field?

7. **If still in school:** What are you going to do after you finish your current level of schooling?

**Interviewer:** Now we are going to switch gears a bit and talk about the world of work.

8. Are you working now?

9. Please tell me about your job – what specifically do you do?

10. How did you come to decide on *(your intended/current field of work)*?
    → **Probe:** When did you make this decision?

11. What seems attractive about the *(career choice or field mentioned)*?

12. What kinds of difficulties or problems do you see associated with your career path?
    → **Probe:** Have you had any difficulties so far in pursuing your work?
    → **Probe:** *If yes:* What happened, and how did you deal with the difficulties?

13. What kinds of personal qualities are necessary to be successful in this kind of work?

14. Which of these qualities do you have?

15. Which of these qualities do you not have?

16. How does your mix of personal qualities, education, and experience fit with your chosen field of work?
    → **Probe:** Will you need to obtain more education?
    → **Probe:** Change your work style?
    → **Probe:** Look for a different kind of work?
→ **Probe:** What have you done so far (or what did you do) to pursue this kind of work?

17. What other lines of work have you considered?

→ **Probe:** What line of work do you plan to pursue in the future?

**Interviewer:** Ok, now we are going to talk about your influences and future goals in terms of work and school.

18. What people or experiences have been major influences on your work and school choices?

19. What kinds of feelings did your parents have about your school choices?

20. How do your parents feel now about your career path?

21. What do you think you will be doing one year from now?

22. Five years from now?

23. How did you decide on this five year goal?

24. What are the ways in which being an adopted person enters into your educational or occupational plans or decision-making?

25. **If not currently working or in school:** What are you doing?
CRITERION DEFINITIONS OF CAREER PLANNING

General Definition: Planning is defined as the individual’s level of thinking about a future career path or chosen field of study. The following criteria should be used to assess the appropriate determine the level/scoring of career planning:

SPECIFICITY/ELABORATION
- Participant provides specific examples and demonstrates a higher degree of details associated with mentioned career/educational plans
- Participant is explicit about the steps necessary to take in order to pursue a career path
- Details include but are not limited to: timeline, necessary education, skills, work experience, relocation

INTENSITY/CONFIDENCE
- Use of strong feeling words that illustrate a level of assertiveness, deliberation, confidence in the mentioned career plan

CONTINUITY/FREQUENCY
- Participant can draw connections between his/her past, and/or current education and work history to a future career plan
- Participant may describe a certain career plan more than once throughout the interview (higher frequency of described plan)

Note: Criterion definitions should be used as overarching guidelines to assist a coder make specific decisions about assigning individual scores (see instructions for individual items below).
SCORING OF INDIVIDUAL INTERVIEW QUESTIONS FOR CAREER PLANNING

Read the following interview questions to assess individual scores on your individual Career Adaptability Scoring Sheet under the items in the category “Planning”.

Note: Some of the interview questions may not match the exact question number in the coding manual. Be sure to match the wording of the intended interview question to score the item.

Question-Specific Discrete Scoring System – Every item should have one of the following four numerical values. If you are unable to decide on a score, please make note of this on your coding sheet and bring this to the attention of the coding group.

- 88 = Not applicable (Individual’s circumstances remain irrelevant to this question; for example, the individual is not in school and the question asks about schooling); Technical problem in interview; Question is not asked in the interview; Interviewee refuses or does not provide a codeable response
- 0 = Absent/Low
- 1 = Present/Medium
- 2 = Present/High

Question 7: What are you going to do after you finish your current level of schooling?
- 88= Not in school, Skipped because this person is not in school; No information due to error/technical error
- 0 = No plan
- 1 = Has an idea of option(s), may or may not be concrete/definite choice yet
- 2 = Has an idea of option(s) AND can describe this in detail and elaborate (meets highest level of criterion above)

Example of a 1 – 11510 “Asher”

7. Again, see if you want to add anything...What are you going to do after you finish your current level of schooling?*

Asher: Hopefully work for a medical company named <Company> or another outfit.*

Rationale: This individual has a plan for what he wants to do post-college, consistent with the use of his major and his career goal. Doesn’t elaborate beyond mentioning an option.

Question 16 PROBES (16PP) in response to question “How does your mix of personal qualities, education, and experience fit with your chosen field of work?”

Score this item collectively based on the responses to the following three probes of Question 16.

→ Probe 1: Will you need to obtain more education?
→ Probe 2: Change your work style?
→ Probe 3: Look for a different kind of work?

- 88 = Not applicable, skipped question bc this individual does not have work; No information (Probes not asked, technical difficulties)
- 0 = No intention of moving forward or pursuing steps in chosen field of work; No knowledge of the steps that are needed (not planful); Language indicates lack of planning or intention to move forwards.
- 1 = Provides some answers to probe, but only has a vague idea of what they need to do to pursue a chosen field of work. Possible intention of pursuing these ideas.
- 2 = Provides answers to probes AND provides explicit details about future steps towards chosen field of work, or maintaining current position.

Example of a 2 – 10707 “Brooke”
Probe: Will you need to obtain more education? *
Brooke: I have to keep my license active. This means every five years I need to renew it. 125 hours of continuing Ed credits. So yes...workshops, seminars, college courses...what ever it takes to maintain my license.*
Probe: Do you think you will need to change your work style? *
Brooke: Yeah maybe at some point. I love to travel, and live in other places other than <State>. So if that means getting certified in another state, then yeah I would do that. To maintain what I like to do here.*

Rationale: Brooke lists specific steps she needs to take to pursue education including the licensure requirements (125 hours CE credits, workshops, etc). She also states she is willing to get certified in another state if necessary (adaptability).

Example of a 2 – 11502 “Dana”
Probe: Will you need to obtain more education? *
interviewer: (In the future)?
Dana: This is my last semester, then student teaching.*

Rationale: Dana has a definitive plan. Despite the brevity of answer, the content and strong assertive language is concrete enough to score response as 2.

Example of a 1 - 11411 “Kendall”

16 Probe: You mentioned returning to get your bachelor's degree. What area would you obtain it in?*
Kendall: Probably business management or finance.*

Rationale: Provides an option for the kind of degree, because he plans to return to get a bachelor’s degree. Individual has plan and desire to go back to school for BA and a possible major/area of study, but there isn’t a certainty or explicit steps. The language “probably” moves this individual’s score down from 2 to 1.

Example of a 0 – 12607 “Natalie”

Probe: Will you need to obtain more education?*
Natalie: If I want to move up faster. If not than it will take time, and I'm okay with that.*

Probe: Will you need to change your work style?*
Natalie: No.*

Rationale: Natalie provides an option but it is simply an answer in response to the interviewer’s question, and she does not indicate intention to pursue these steps.

Question 17 PROBE: What line of work do you plan to pursue in the future?
Note: Not to get mixed up with Question 17: What other lines of work have you considered? which is coded under Exploration]

• 88 = No information
• 0 = No plan; or states an option without any intention/confidence (language) or lacks consistency
• 1 = States a possible future line of work; or states plan but there remains some lack of concrete details or elaboration; the plan should be consistent with other noted plans throughout the interview
• 2 = Explicit details about nature of job or future plan that is consistent with other noted plans throughout the interview, specific about the kind of planned future work he/she wants to pursue; language is consistent and indicates there is an actual plan or intention.

Example of 2 – 13302 “Ann”

Probe: What line of work do you plan to pursue in the future?*
Ann: I want to be working in a hospital as a registered nurse or be working in a doctor’s office as a nurse practitioner.*
Rationale: This individual lists specific desired work/jobs she wants to pursue, and is specific about the nature of the work she’d be doing (working as a registered nurse in a hospital OR as a nurse practitioner in a doctor’s office).

Example of 1 – 12302 “Matilda”

17. (Probe) What line of work do you plan to pursue in the future? *
Matilda: Working with people in some kind of capacity.*
Probe: What kind of specific jobs are you interested in pursuing in the future? *
Matilda: I would like to work with HIV/AIDS in Africa. I want to help with the idea of empowering the people to take care of them selves in a meaningful way. Setting up a structure that they can adapt to make their own for their own circumstances whether it be geared toward older people who are dying or orphaned kids....*
Interviewer: Sounds like very important work...

Rationale: While the individual describes the “nature” of the work, this is more of an ideal illustration of the kind of work she wants, but doesn’t provide specifics about the job or the career path she wants to pursue.

Example of 1 – 10211 “Keith”

Probe: O.k., O.k. So just to confirm here...What line of work do you plan to pursue in the future? *
Keith: Sports or acting.*

Rationale: There is a plan (couple of options), however no elaboration that can help assess the level of concrete plan or level of planning involved. This plan is consistent with other interview responses (e.g. 1-year, 5 year plans) mentioned throughout or later in the interview.

Example of 1 – 10202 “Hugo”

17. What other lines of work have you or are you considering?*
Hugo: Thought of getting back into auto parts, one of my favorite past jobs.*

Rationale: Has some tentative idea, no elaboration.

Example of 0 – 12705 “Alvina”

17. So what do you—well, tell me a little bit more about what you think you’d like to do in the future, what line of work you’d like to pursue in the future.
Alvina: Really, at this point, I don’t even know. I think at this point, I just need to get back into school, and even it’s to start taking some basics and figure it back out. Because I’m not sure if drafting is what I really want to do any more. At this point, I think I’ve evolved so much that I still enjoy the computer and being on the computer, but there may be some other field that’s better suited for me at this point in my life. And I’m not quite sure what that is.

Rationale: This individual is unsure of a plan, note the uncertain language throughout “I don’t even know…I’m not quite sure what that is…I’m not sure” Plainly states that she has no plan in mind that she can pursue at this point.

Question 21: What do you think you will be doing one year from now?

- 88 = No information; Uncodable
- 0 = No 1-year plan; or only answers under pressure or prompting by interviewer; only personal details that are inconsistent or unrelated to prior details about job/education
- 1 = Has an idea of option(s) for a career plan; language or confidence in plan remains somewhat lacking OR there is minimal to vague level of detail for the 1-year plan
- 2 = Has a plan AND can describe explicit steps or details about a plan; is coherent with the rest of the interview; strong language/confidence in plan

Example of a 2 – 11411 “Kendall”

21. What do you think you will be doing one year from now?*

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Kendall: Working at this dealership, getting trained on all the different types of bikes they have, buying a house.*

Rationale: This individual states specific plans, details (getting trained), and language is assertive

Example of 1 – 11904 “Kerry”

21. What do you think you will be doing one year from now?

Kerry: Oh, the same thing. I’ll be working the mortgage industry making good money.

Rationale: States specifically that he/she will stay in the same job (in mortgage industry), is confident in his/her language. Does not provide more details or elaboration.

Example of 0 – 11603 “Rodney”

21. What do you think you will be doing one year from now?*

Rodney: Probably the same thing I am now.

Rationale: Has a vague and uncertain language, no detail, not much to read from.

Example of a 0 – 10707 “Brooke”

21. What do you think you will be doing one year from now? *

Brooke: Yeah, I like to leave that one to the higher powers, and my choices... hopefully not living in <State>.. maybe Colorado, or Costa Rica, or California, Seattle...I’m an idealist...want to snowboard, or surf, and live my life as simple as possible.*

Rationale: Brooke does not have a future 1-year career plan. Nothing that applies to her career plans.

Example of a 0 – 13702 “Milton”

21. What do you think you will be doing one year from now?*

Milton: Living in <City> and working. Not sure what the work will be.*

Rationale: He doesn’t provide a plan, and denies knowing what the intended “work” will be.

Question 22: Five years from now?

- 88 = No information, not applicable
- 0 = No 5-year plan; provides inconsistent plan (from the rest of the interview); only personal details that are inconsistent or unrelated to prior details about job/education; or only answers under pressure or prompting by interviewer
- 1 = Has an idea of possible option(s) for a career plan; lists an idea of 5-year job he/she wishes to pursue and attain
- 2 = Has a plan AND can describe explicit steps or details about a plan; is coherent with the rest of the interview; strong language/confidence in plan

Example of a 2 – 13304 “Ann”

22. What do you think you will be doing five years from now?*

Ann: I see myself working in a hospital with my RN license.*

Rationale: This response is consistent with the rest of her 1-year plan and the interview; she states details of being a nurse.

Example of a 2 – 11510 “Asher”

22. And...Five years from now?*

Asher: On my way in the company. Set up with my own group of doctors and moving right along.*

Rationale: This individual’s 5 year plan is consistent with the plan he mentions (both in his education, 1-year career goals) throughout the interview; confident language.

Example of a 1 - 11411 “Kendall”

22. Okay, how about five years from now?*

Kendall: Same thing, hopefully making more money, maybe married with another dog.*

Rationale: This individual plan to stay within the 1 year plan job (indicating a 1), the language is less secure “hopefully” and “maybe…”, less specific.
Example of a 1 – 13711 “Brad”
  22. What do you think you’ll be doing 5 years from now?*
      Brad: I think I’ll probably have a job in my career field and I’ll be supporting myself.*
Rationale: Uncertain language “I think”, but mentions some options as to what he can do or hopes to do in 5 years.

Example of a 0 – 13607 “Reed”
  22. OK. How about 5 years from now?*
      Reed: Uh, maybe something different. I don’t know. Maybe I’ll take a driving job. I don’t know.*
Rationale: Individual lacks any confidence in his response, although he has “maybe…driving job”, it is clear he has no idea.

**Question 23: How did you decide on this five year goal?**

- 88 = No information; Uncodeable
- 0 = No rationale provided, No 5-year goal, Not planful (Simply made up the answer on the spot)
- 1 = Provides a rationale for the five-year goal
- 2 = Thorough, well-thought out answer for why he/she decided on a five-year goal, ability to articulate why or how this goal will fit with the rest of his/her “story” throughout the interview (coherence); mentioning specific jobs and fields that attribute to their thinking about a career goal/plan; more definitive planful language that leads from one step to another.

Example of a 2 Response – 11502 – “Dana”
  23. How did you decide on this five year goal? *
      Dana: I don’t know. Elliot and I talk about it all the time. He still has some school left, so we talk about what will fit into our schedules. I want to teach for at least 5 more years before perhaps pursuing administration and going back to school for that. *
Rationale: Dana uses her partner as a resource for making this decision, a specific time schedule, and her goals with specific details (five year teaching), and coherence with the rest of her goals and the interview.

Example of a 2 Response – 13304 “Ann”
  23. How did you decide on this five year goal?*
      Ann: I have to help with the expense of schooling so I have to work to help pay for my education and I figure it will take that long to accomplish this goal.*
Rationale: Explicit rationale that includes her career goal to pursue education.

Example of a 1 – 11510 “Asher”
  23. How did you decide on this five year goal?*
      Asher: By talking with people who were in the profession. Tried to set a realistic goal.*
Rationale: States he wanted to make a “realistic goal”, talked to others and actively used resources to make a decision. Doesn’t provide more details about a rationale for why this five year goal is what he wants; only states how he came to make this decision.

Example of a 1 Response – 12001 “Trent”
  23. And how did you decide on that for a 5 year goal?
      Trent: Oh, it’s really more like a 3 year goal, but.
      Probe: Well, that’s even better, right?
      Trent: That’s right. I don’t know. I mean, I know I need time to do that. It’s not just going to happen. And I know I need to build up some money and do sort of… I know I need to get a job that pays a lot better than what I have right now. And I need to live at the same level I’m living now so I can save up a whole mess of money. That’s all there is to that, I mean, but…
Rationale: Has some criteria for what he wants in his long-term goal and why – He needs time, needs to build up money, needs to get a job and accumulate finances to get towards self-employment status. This fits in with his larger long-term goal of self-employment.

Example of a 1 Response – 10506 “Justin”
23. So how did you decide on that as a 5 year goal, to be settled in a career?
Justin: Uh, it was... I don’t know. I just have to do it. I need to do it. I need my son to have a stable income for him, like, you know, while he’s growing up so he can have a new bike or whatever. Then I want to set up an account for him for college so that by the time he’s ready to go, he’ll have at least enough for like the first year, whatever.
Rationale: This individual thinks of his son and wanting to have financial security/stability as a rationale.

Example of a 0 Response – 0
23. How did you decide on this five year goal?*
Kendall: It just seems to fit what I want to be doing.*
Rationale: Lack of a rationale with any level of detail to understand why Kendall decided on a 5-year goal.

Example of a 0 Response – 13702 “Milton”
23. How did you decide on this five year goal?*
Milton: Well I’m just going on how I feel now.*
Rationale: He is only making up an answer based on “how he feels”. Not planned or thought out on his own.
CRITERION DEFINITIONS OF CAREER EXPLORATION

General Definition: Exploration is defined as the participants active use of resources and engaging in exploration of future career choices. The following criteria should be used to assess the appropriate determine the level/scoring of career exploration:

“Resources” include but are not limited to: personal characteristics and values, people, education or work history

SPECIFICITY/ELABORATION

- Participant cites past resources
- Participant discusses how his/her past resources will move him/her towards a future goal with clarity and specificity
- Participants cites current resources
- Participant discusses how current resources are being used to pursue a future career path with clarity and specificity
- Participant is aware of what he/she needs to take advantage of in order to explore other possible paths
- Participant describes specific qualities that indicate greater exploration (e.g. self-exploration, information-seeker)
- Participant can provide details about when or how often he/she used a resource to help with the exploration of a future career choice

CONSISTENCY AND CONTINUITY

- Participant is able to connect his/her past and present resources to a future career path

BREADTH AND/OR DEPTH

- Higher quality of a response may be present (e.g., the participant lists resources) AND the response shows how these resources have been actively explored and used towards a present or future career goal.
- Participant indicates a greater number of career options that have been explored (see note above about breadth versus depth)
- If participant indicates earlier that he/she pursued or are currently pursuing education or work that is related to the future career path they are pursuing, this should be considered as a resource and evidence of exploration.
- The participant has or is actively engaging in a form of “information seeking” to help develop his/her career path (speaking with others, reading newspapers, online advertisements, getting connected to jobs through someone else)
- Participant demonstrates that he/she has thought about and is aware of potential obstacles or barriers in their career path, and can articulate how this has or will affect his/her career choices.
- Participant demonstrates that he/she has or is weighing pros and cons of self and situation in their exploration of career options
- Participant describes internal motivation, self-exploration and/or self-awareness (or something similar) as one of his/her participant’s qualities

INTENSITY/CONFIDENCE

- Use of strong feeling words that illustrate a level of assertiveness, deliberation, confidence in the mentioned career exploration

Note: Criterion definitions should be used as overarching guidelines to assist a coder make specific decisions about assigning individual scores (see instructions for individual items below).
SCORING OF INDIVIDUAL ITEMS FOR CAREER EXPLORATION

Use the following questions to assess an overall rating for Career Exploration. Indicate scores on your individual Career Adaptability Scoring Sheet under the items for the category “Exploration.”

**Note:** Some of the interview questions may not match the exact question number in the coding manual. Be sure to match the wording of the intended interview question to score the item.

**Question-Specific Discrete Scoring System** – Every item should have one of the following four numerical values. If you are unable to decide on a score, please make note of this on your coding sheet and bring this to the attention of the coding group.

88 = Not applicable (Individual’s circumstances remain irrelevant to this question; for example, the individual is not in school and the question asks about schooling); Technical problem in interview; Question is not asked in the interview; Interviewee refuses or does not provide a codeable response

0 = Absent/Low

1 = Present/Medium

2 = Present/High

**Question 2: What is/was your major field or primary area of study?**

- 88 = Not in school, or did not pursue school; Question not asked/missing
- 0 = If they say they chose major/area of study unintentionally or without any thought or plan; or did pursue school but did not choose a major.
- 1 = Presence of past/current education history (resource)
- 2 = Presence of past/current education history AND this is useful in informing their current/chosen career path. There is a level of continuity/connection that the coder needs to make based on the answer to this question to the rest of the interview. AND/OR presence of past/current education history that may not necessarily be tied to their current/chosen career path, but indicative of breadth of exploration (trying out different options and engaged in different majors, schools).

**Example of 2 – 12605 “Hester”**

2. What is your major field or primary area of study?*

Hester: I'm getting my associate's degree in Medical Office, where one day, I'll hopefully work in a hospital or a doctor's office as a Medical Secretary.*

**Rationale:** Hester is working towards a degree that she makes an explicit connection between her educational resources and her future career plan.

**Example of 1 – 11904 “Kerry”**

2. OK. What was your major field or your primary area of study?

Kerry: Uh, when I went to a 4-year school, I was studying business. And then I actually moved to <State>, and I went to a technical school and got a national license in massage therapy.

Probe: In massage therapy?

Kerry: Uh-huh [yes].

Interviewer: Wow! Very cool. So—

Kerry: But that’s not my current job (laughs).

Probe: It’s not your current job?

Kerry: No.

**Rationale:** Her major is a resource, but doesn’t inform her mortgage job that she fell into.

**Example of 0 - 11704 “Nathan”**

2. So what was your major field or primary area of study?

Nathan: Beer. No I am just kidding.

Interviewer: What did you say?
Nathan: Beer. I am just kidding. No I don’t know. I went to school for the wrong reasons. I went to a big school party in eastern <State>, <University>, go Koogs.

Interviewer: Yah. (Laughs)

Nathan: We just broke the top ten in basketball; we are ranked in the top ten.

Interviewer: Nice.

Nathan: But I went there for the wrong reasons. I went there to party and socialize first, and school second. I had a lot of options to go to a smaller school; actually I had a lot of options to go and play football in college, and for some reason I totally stopped doing that. I could have D-I football and stuff.

Rationale: This individual did not have a major, he did not take advantage of college as a resource.

**Question 3: How did you come to decide on _____ as a major field?**

**Probe:** When did you first become interested in (major field)?

- 88 = Not in school, or did not pursue school; Question not asked/missing
- 0 = Vague answer
- 1 = Can provide some information about their interest in the field (timing, influences, experiences), lists resources, lists options (breadth) without much elaboration; or one option (but not much about the depth of exploration)
- 2 = Higher quality of description; Provides more elaborate, specific information; and lists resources in connection to exploration of career path; either lists a higher number of resources (breadth), or greater depth of exploration with fewer (or one) resources.

**Example of 2 - 12202 “Suzanne”**

3. How did you come to decide on sociology and women’s studies as a major field? *

Suzanne: Dad was in sociology and it was a universal major and I fell into women studies by taking a random course.*

Probe: Can you tell me more about what influenced your choice to go into these majors?*

Suzanne: I was intending on law school so sociology worked out there, and when I took my first women studies course I was enlightened with the material. Also there was the benefit of smaller classes and discussion instead of lecture as pedagogy of teaching. *

Rationale: Suzanne lists resources (dad in sociology, advantages of major being universal, women studies course) AND is able to connect why these resources were beneficial towards her decision to continue pursuing these areas.

**Example of 2 - 13711 “Brad”**

3. How did you come to decide on business as a major field?*

Brad: It’s just a field that has always interested me and I’m a very personable person and that’s needed to be in business.*

Probe: Ok. When did you first become interested in business?*

Brad: Once I took my first college business class in college.*

Interviewer: When was that?*

Brad: In fall of 2004.*

Probe: Oh, okay. What do you think influenced your choice to go into business? To take that course?*

Brad: I wasn’t sure what I wanted to do for a career so I tried different courses and I liked business.*

Rationale: This individual makes connection between his personality qualities and future career path. He used resources (college course) and he “tried different courses” as active exploration

**Example of 1 – 12605 “Hester”**

3. 10. How did you come to decide on Medical Office as a major field?*
Hester: Well, I like typing a lot and doing office type work. I type fairly fast, I guess.*
Probe: When did you first become interested in it?*
Hester: I think it was maybe in 2003.* At first, I wanted to go into business, then accounting, now its Medical Office.*

Rationale: This individual provides information about the different options (breadth of exploration) that were used to decide, but does not elaborate about how she explored.

Example of 0 – 11416 “Darcie”
3. How did you come to decide on English as a major field?*
Darcie: I don’t plan on using my degree immediately.*
Darcie: I like to read and write.*
Probe: When did you first become interested in English?*
Darcie: As a child.*
Probe: What do you think influenced your choice to go into English?*
Darcie: I’ve always enjoyed reading as a child…but I still can’t spell LOL.*

Rationale: This individual doesn’t provide a concrete answer that provides information about why she chose English besides “enjoying reading as a child”. Very vague rationale.

Example of 0 – 13702 “Milton”
3. How did you come to decide on physical education as a major field?*
Milton: Because it would be easy to pass.*
Probe: When did you first become interested in physical education?*
Milton: My freshman year of college I was looking through the book and saw the classes that you had to take.*
interviewer: Oh, ok.*
Probe: What do you think influenced your choice to go into physical education?*
Milton: I like sports.*

Rationale: This individual has very little evidence of exploring his major and thinking about this major intentionally other than being “easy” and liking sports.

Question 6 + Probe: Have you thought about other majors/fields? 
⇒ Probe: If yes: Why did you decide not to pursue this other field?
• 88 = Not in school, or did not pursue school; No information/missing
• 0 = Has not considered other majors/fields; Has considered (states affirmative “yes”) but does not specify or elaborate further about which major/fields or how this was explored in any way
• 1 = Lists other considered majors/fields; indicates minimal-low breadth or depth of exploration in these considered majors/fields; some rationale may be present, however level of detail/elaboration is weak/low
• 2 = Lists other majors/fields AND indicates some rationale as to why he/she did or did not decide to pursue this; uses language that indicates confidence about his/her decision to pursue a field or that he/she has actively thought about these options in depth (more detail about breadth and/or depth of exploration)

Example of a 2 response - 12202 “Suzanne”
6. Have you thought about other majors/fields? *
Suzanne: Law, society and justice, but I got out of my lawyer phase.*
Probe: Can you tell me more about why did you decide not to pursue this other field? *
Suzanne: I did not like the class that I took, and it would have been more stressful.

Rationale: Suzanne lists the other explored major fields and mentions why she did or did not pursue it (“Did not like the class…would be more stressful”)

Example of 2 – 12605 “Hester”
6. Have you thought about other majors/fields?*

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Hester: Well, I have thought about maybe going back and getting a bachelor's degree sometime for Medical Office, but I'm not quite sure yet. Yes, social work and a business degree. Sociology was too hard for me in high school.*
Probes: And did you say nursing as well?*
Hester: I have ALWAYS wanted to go to Africa and help out the poor, ever since I can remember.*
Yes, I was thinking about helping deliver babies or taking care of them in the nursery, but I don't think I would do that.*
Probes: Why did you decide not to pursue this other field?*
Hester: The nursing one?*
Interviewer: Yes, Any of them actually. Social worker, business, nurse.
Hester: Well, nursing is just hard to get into. You have to keep your GPA up really high. And social work, it was hard when I took sociology. And for business, I guess I just wasn't quite sure.*

Rationale: This individual has explored other fields and is explicit about which options she has considered; she also provides an elaborate rationale as to why she did not pursue these other fields.

Example of a 1 – 13608 “Edward”
6. Have you thought about other majors / fields?*
Edward: Yes, but not seriously.*
Probes: Which other major/fields?*
Edward: Journalism, broadcasting, geology, education.*
Probes: Why did you decide not to pursue these other fields?*
Edward: Too involved in engineering to start over.*

Rationale: The level of depth into alternative options was not “considered seriously”; also, his rationale is present but is not elaborated – language is uncertain, “I am not really sure…I don’t know.”

Example of a 0 response – 10211 “Keith”
6. Have/Had you thought about other majors / fields?*
Keith: Sure lots.*
Probes: Why did you decide not to pursue these other fields?*
Keith: Good question. I guess I am not really sure. Maybe it is just part of the growing up process... I don’t know.”

Rationale: Keith states he has thought about other fields, but does not elaborate – language is uncertain, “I am not really sure…I don’t know”

Question 10: How did you come to decide on (your intended/current field of work)?

- 88 = No information
- 0 = Vague/no answer; or the decision is purely externally/circumstantially motivated
- 1 = Can provide some information about their interest in the field (timing, influences, experiences), lists resources
- 2 = Higher quality of description; Provides more elaborate, specific information; and lists resources in connection to exploration of career path; Indicates that he/she was actively exploring a higher number of resources, or greater depth of exploration with fewer (or one) resources.

Example of 2 response -13612 “Mitch”
10. Interesting, how did you come to decide on being a special education teacher?*
Mitch: I did a lot of substitute teaching in special education classrooms. It is a very interesting job, and your days can really go by fast. You never have two days that are the same.*
Probes: When did you decide to become a special education teacher?*
Mitch: Shortly after I graduated in 2005 I had thought about going back to be certified in special education. I did not decide fully until I did a lot of substitute teaching in the classrooms. Somewhere towards the end of the year 2005.*
Rationale: Mitch “did a lot” of teaching that informed his decision to become a teacher, specifically in special education classrooms. He pursued more experience in the classroom to help inform his idea of getting certified in special education.

Example of a 2 Response – 11411 “Kendall”
10. How did you come to decide on this position?*
Kendall: I was offered a few different jobs at different dealerships. This job offered me the most money and the best benefits and was in the area that I wanted to live in.*
Probe: Sounds great, when did you make this decision?*
Kendall: About a week ago.*
Rationale: He looked at different jobs at different dealerships (active exploration), he considered and weighed options (money, benefits, and geographic location), and made a decision

Example of a 1 Response – 10211 “Keith”
10. How did you come to decide on this position?*
Keith: Well, I moved in with my girlfriend and we were both going to school at the time. She only had a year 1/2 left and I had three years. We needed some income coming in to pay the bills so I stopped school and started looking for work. Found medical taxi driver ad in the paper and thought it sounded cool. I like to help people and I don’t mind driving either, so I went for an interview and got the job. I moved up to manager after 1 year.*
Rationale: Lists timing and resources but there isn’t really see active exploration present

Example of a 0 Response – 13403 “Koki”
10. How did you decide on that job?*
Koki: I kind of fell into it. I started as a part time file clerk my last year in college. I was offered a job in sales support and I have moved from marketing to quoting to new business implementation to renewals and now agent and provider relations.*
Rationale: “I kind of fell into it” + mere listing of positions without any indication or language about internal motivations, interests, connecting what he/she wants to do within the career.

Question 11: What seems attractive about the (career choice or field mentioned)?
Question 12: What kinds of difficulties or problems do you see associated with your career path?

⇒ Probe: Have you had any difficulties so far in pursuing your work?
⇒ Probe: If yes: What happened, and how did you deal with the difficulties

Note. Score collectively based on response to Questions 11 and 12 and the Probes
- 88 = No information
- 0 = Cannot provide characteristics that are attractive or difficult about chosen choice/field; Denies anything that has been attractive or difficult about the field (indicating a lack of exploration or thoughtfulness about the career path)
- 1 = Lists features of the field, indicative of exploration of the situation or self; states difficulties that may be or have been encountered.
- 2 = Can provide features/difficulties (Level 1) AND indicate rationale for why they did or did not continue to pursue; can tie the features of the field to their chosen career path; provides details about how he/she responded to difficulties (indicating adaptability to situations)

Example of a 2 Response 13403 “Koki”
11. What's attractive about your position?*
Koki: It's very flexible. I can usually make my own hours. I have direct contact with clients, and I'm always doing something different. My job keeps me thinking all day.*
12. What kinds of difficulties or problems do you see associated with your career path?*
Koki: It's not a definite path, like a doctor or a lawyer. I could be in a complete different field in a few years.*
Probe: Have you had any difficulties so far in pursuing your work?*
Koki: A few. I am overqualified for some jobs. Others are pure commission based, which makes me nervous.*
Probe: What happened, and how did you deal with the difficulties?*
Koki: I haven’t been offered any of the positions that I actually want, so I just keep looking.*

Rationale: Koki states the features (both positive and difficult), and she anticipates changes in the future that can affect her job prospects (“I could be in a complete different field.”) and she “keeps looking” which is a key statement indicative of adaptability to changes.

Example of a 2 Response – 12202 “Suzanne”
12. What kinds of difficulties or problems do you see associated with your career path? *
Suzanne: Income won’t be great, especially when living in the <City> area (cost of living) since I am trying to make it a short term job, nothing else. *
Probe: Have you had any difficulties so far in pursuing your work? *
Suzanne: If Bob makes enough as a financial advisor then I will stay at <Job> probably. *
Suzanne: Nope, I’m pretty determined and stubborn. Not getting into grad school this year was disappointing but in my usual fashion I had a plan B.*

Rationale: This individual indicates a level of exploration of options, as she had a “Plan B” once her graduate school plans didn’t work out.

Example of 1 Response 10211 “Keith”
11. What else seems attractive about working as a manager of a medical transport service?*
Keith: I don’t have to sit behind a desk all day. And I get to meet really interesting people.”
12. What kinds of difficulties or problems do you see associated with your career path?*
Keith: My career path is a learning experience and all sorts of difficulties and problems come up along the way. Working where I am now isn’t really working towards anything I see in my future career plans, so that is a problem.”
Probe: Have you had any difficulties so far in pursuing your work?*
Keith: Any time I have ever had an interview for a job I have got the job. So for the future I think it is only a matter of time before someone discovers me. So I’m not too worried about the difficulties there, pursuing my work has never been a problem for me. I work hard and well and if there is any room for advancement then it’s just a matter of time as well.*

Rationale: Keith makes the connection that this [medical transport job] is not his future career path but he does not give the attractive qualities or difficulties in his future career path. If we are to think of his chosen career path as acting, then this job does not really tie in, though he does explain why he chose to do this job. He also does not explain why he continues to work as manager or if it is not what he wants to pursue.

**Question 16: How does your mix of personal qualities, education, and experience fit with your chosen field of work?** [See Note]

Note. Read Questions 13-15, assess how the participant is able to tie these with their future career choice/chosen field of work in Question 16

Questions 13: What kinds of personal qualities are necessary to be successful in this kind of work?
Question 14: Which of these qualities do you have?

- 88 = No information
- 0 = Does not see a fit with chosen work, or lists only generic qualities on which he/she does not elaborate (i.e showing up on time for work, being responsible, respecting authority, etc)
- 1 = Demonstrates self-awareness, but does a poor or vague job connecting their personal qualities to chosen work
- 2 = Explicitly states how certain qualities fit w/intended future career choice.

Example of a 2 - 11502 “Dana”
16. How does your mix of personal qualities, education, and experience fit with your chosen field of work?*

122
Dana: I am passionate about my work. I love to teach and I have been in and out of many classrooms in the past. I have a list of things that I’d like to do and I go to a school that specifies in Education. My school is also the second largest technological school in the nation, so I believe that I can bring that to my colleagues.

Rationale: This is a good example of a response that connects the mix of qualities/resources with her intentional decisions about why she is pursuing future career goals (and her current work)

Example of 2 -12605 “Hester”

16. How does your mix of personal qualities, education, and experience fit with your chosen field of work? *
Hester: I have a good attitude, good communication skills, and good people skills. I’m also in college right now and I’m working as a part-time subcontractor at home that should help me get a job.

Rationale: This individual makes an explicit connection between the kind of education and work experiences that is going to help her get the future job/field of work she is pursuing.

Example of a 1 -10408 “Justin”

16: “13. What kinds of qualities do you think would be necessary, or are necessary to be successful as a veterinarian?
Justin: Loving animals and I kind of like animals more than people sometimes. They’re a lot easier to get along with."

“So, how does your mix of personal qualities, and your experience fit with that field of work?
Justin: I’ve grew up by the creek in <City> like my old neighborhood. I used to always catch snakes. I’ve been bit by a rattlesnake when I was younger, and it didn’t ever freak me out like at all. I’ve never been really scared of any animals. And we’ve had pets. Not any more, but. It seems like most pets like me, though.”

Rationale: Demonstrates self-awareness of his qualities but does a poor job stating how these qualities would help him have a successful career as a veterinarian.

Example of a 0 – 11603 “Rodney”

13. What kinds of personal qualities are necessary to be successful in this kind of work? *
Rodney: Intelligence, strong medical knowledge, emotional stability, compassion, and caring for animals and owners in emotional states.
14. Which of these qualities do you have?
Rodney: All.
16. How does your mix of personal qualities, education, and experience fit with your chosen field of work? *
Rodney: Perfectly.

Rationale: Rodney provides the qualities needed, but he doesn’t elaborate or specify how these qualities fit with his work. He states “perfectly” but doesn’t elaborate so this doesn’t provide evidence for “self awareness”

Question 16 Probe 4: What have you done so far (or what did you do) to pursue this kind of work?*

- 88 = No information, Probe not asked
- 0 = Denies having done anything to pursue future career path
- 1 = Lists some steps taken towards the chosen field of work; some options were explored, some/little specificity or elaboration
- 2 = Lists concrete action step(s) taken towards a career goal, AND provides details (specificity), evidence of exploration in depth and/or in breadth towards chosen field of work; lists resources that were used

Example of 2 - 11411 “Kendall”

Probe: What have you done so far (or what did you do) to pursue this kind of work? *
Kendall: To get my job, I applied online and called various dealerships to get interviews. Then I went up and had several interviews.*

**Rationale:** This individual took clear action steps towards pursuing the chosen work and lists concrete actions (applying, calling, interviewing); as well as a breadth of exploration (“various dealerships”)

**Example of 2 - 13612 “Mitch”**

**Probe:** What have you done so far (or what did you do) to pursue this kind of work?*

Mitch: I am a special education homebound instructor. I am working on my certification in school.*

**Rationale:** Explicit and concrete steps, and he is continuing to work towards his career goal (certification).

**Example of 0 – 13301 “Lane”**

**Probe:** What have you done so far to pursue this kind of work?*

Lane: Not much.

**interviewer:** I know that you have tutored!

Lane: Well but that isn’t much to pursue a career hehe.

**Rationale:** This individual denies having done anything to pursue the career of choice.

**Question 17: What other lines of work have you considered?**

- 88 = No information
- 0 = Has not considered other options
- 1 = Has considered other options, no elaboration
- 2 = Has considered options AND can elaborate and provide some depth of exploration (active exploration)

**Example of 2—10409 “Trevor”**

17. Sure. What other lines of work have you considered?

Trevor: Um, I really haven’t considered much. I’ve considered being an electrician ‘cause then I can kind of be my own boss. But even then, you know, it’d be kind of the same thing every day, so.

**Rationale:** Trevor has considered other options (electrician) and elaborates on what was appealing (being his own boss), as well as why he didn’t pursue it (same thing every day)

**Example of 1– 13403 “Koki”**

17. Ok...what other lines of work have you considered?*

Koki: I have considered event planning and legal secretary. I did my internship at Disney world, and that was my dream job.*

**Rationale:** Koki can list her options (event planning, legal secretary, and an internship) but she does not elaborate on how these experiences were explored in depth, or actively.

**Example of 0– 13616 “Cornelius”**

17. OK. What other lines of work did you consider or have you considered?

Cornelius: Um, I guess I never really pursued anything with real great interest. But like I was saying before, I always liked—I love animals. Anything to do with the animals, being out in the woods, being outside hunting. I love animals, but I love to hunt, too, so I don’t know how that works, but.

**Rationale:** Provides a reason for liking what he does, but this is not a line of work, or does not tie back to any kind of job that he has explored. Just a description of his interests.

**Question 18: What people or experiences have been major influences on your work and**
school choices?

- 88 = No information
- 0 = Do not provide other people or experiences as major influences
- 1 = Names people and experiences
- 2 = Names people and experiences AND can connect explicitly to chosen school, work, career choices

Example of a 2 Response: 13612 “Mitch”

18. What people or experiences have been major influences on your work and school choices?*

Mitch: My parents at first. My wife has also been an influence because she is a youth case manager for Goodwill, and deals with youth with disabilities. I have had good experiences and good teachers in my education classes at school.*

Rationale: Resources: Parents, wife (youth case manager); good experiences; good teachers in ed classes; school. Specific about how these resources were useful.

Example of a 2 Response: 10202 “Hugo”

18. What people or experiences have been major influences on your work and school choices?*

Hugo: Mother and Father encouraged the auto tech classes, and my wife’s family encouraged the company I work for now.*

Rationale: Individual makes connections between his resources (parents and wife’s family) specifically to how this has furthered his career (parents → auto tech classes; wife’s family → company)

Example of a 1 Response: 10408 “Justin”

18. What people or experiences—other experiences have been major influences on your work and your school choices?

Justin: Um, I guess my brother influences me because he, right when he got out of high school, he went right to the Culinary Institute in New York. So, and he got that done right out of the way, like. But I said I was going to take a year off and then go to school. And then it was 2 years, 3 years. And I don’t know. Right after high school, I got into the selling drugs a lot, so kind of... I don’t know. At the time, it seemed like it was cool, but I don’t know. Not cool, but it was just quicker money. I didn’t have to work 8 hours, so.

Probe: So how did your brother influence you, do you think?

Justin: He’s a chef at a restaurant here. And he also owns his own poker room, so he’s really business oriented. That’s something that I look up to. Same with my parents; they’ve always... both of them... Well, my mom’s taught for 30 years. She still works to this day. I mean, she’ll be retired here pretty soon, but they still both work.”

Rationale: Justin names members of his family as influences but does not state how they have impacted him in his jobs or career. His language is also not as certain when he tries to tie his resources (brother, parents) to his career choices. “I don’t know” – repeatedly.

Example of a 1 Response: 12605 “Hester”

18. What people or experiences have been major influences on your work and school choices?*

Hester: My parent’s. My mom has her master’s degree and my dad has his Ph.D.*

Rationale: She states resources (parents and the degrees), but doesn’t make a connection between her career plans and how these resources have been useful/informed choices.
## APPENDIX D

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APPENDIX E
ADDENDUM TO ORIGINAL STUDY METHOD AND RESULTS

A. Data Analysis

Due to large amounts of missing data from different time points during the course of the longitudinal study, separate analyses were run to examine differences in results with less missing data imputation. For example, at Wave 4, 114 adopted adults participated, and 95 of these 114 adults indicated they worked at least 10 hours a week. In the original analyses, 36% of the data were imputed from Wave 4 to include information in measures assessed at earlier timepoints to result in a sample of 177 individuals. It was important to investigate whether the results changed when running analyses on a smaller dataset with less imputed data. Therefore, a separate set of analyses was run based on a dataset of those who participated at Wave 4 and indicated they worked at least 10 hours a week, resulting in a sample of 95 adopted individuals. This dataset of 95 individuals was used to examine Research Questions 2 and 3, examining relationships between factors across Waves 2, 3, and 4. For Research Question 1, the dataset of 177 individuals was used to test the models using adoption-related indicators and factors at Wave 2. Mean, standard deviations, and correlations of the dataset used for research question 1 ($N = 177$) are shown in the original analyses (See Tables 4 and 5 in Chapter 6). The mean, standard deviations, and correlations of the new dataset used for Research Questions 2 and 3, with a sample size of 95 individuals, are shown in Tables A.2, A.3, and A.4.

Structural equation modeling (LISREL) would not be an ideal analytic model to test the relationships between indicators and factors across Waves 2 through 4, due to the smaller sample size in the dataset of 95 individuals. Kline (2010) recommends a sample size no smaller than 200 to run structural equation models. Composite scores were created using principal components analysis (PCA) in SPSS 21, instead of using latent factor scores previously created in LISREL in the original analyses. PCA is a procedure similar to latent factor analysis in that it reduces the number of observed variables and is used when variables are highly correlated. PCA reduces the number of observed variables to a smaller number of principal components which account for most of the variance of the observed variables. When running PCA, if there were multiple components extracted, the first component that accounted for most of the variance in the data was used in the model. Table A.1 shows the means, standard deviations and
correlations between the PCA composites used in the model for research question 1 \((N = 177\) individuals), and Table A.2 shows these descriptive statistics and correlations for composites used for research questions 2 and 3 \((N = 95\) individuals).

Ordinary least square (OLS) regression was used in SPSS 21 to test the regression models (Research Question 1), simple mediation model (Research Question 2), and conditional process model (Research Question 3). The PROCESS macro (Hayes, 2013) in SPSS was used to test for mediation, and conditional process analysis (otherwise known as “moderated mediation”), consistent with the original analyses.

**B. Role of Adoptive Identity on Adolescent Career Exploration**

In an OLS regression model, principal components for adoptive identity focus, adoptive family integration, and adoptive parent education, were entered as predictors of the principal component, career exploration during the adoptee’s adolescence. Career exploration was not predicted by the adoptive identity focus, adoptive family integration or adoptive parents’ education (Table A.5).

In addition, it was examined whether these relationships between adoption-related predictors (adoptive identity focus, family integration, and parent education) and career exploration differed for early adolescents (between 11-15.99 years, \(n = 103\)), and late adolescents (between 16 - 21 years, \(n = 74\)). A simple moderation model was tested using a dichotomous indicator of age (e.g. early adolescents = 0, late adolescents = 1). With main effects and an interaction term (interaction term of age by each component) included in the model, there was no significant interaction of age by each of the components. In a main effects only model, with age as a predictor, age was significantly related to greater career exploration during adolescence in that older adolescents engaged in more career exploration compared to younger adolescents \((b = .681, p < .01)\). Table A.6 shows the results of the main effects model testing the relationship between age, adoption variables, and career exploration. A one-way ANOVA revealed a significant mean difference between adolescent age groups in terms of career exploration (Table A.7).

**1. Indicator-Level Analyses of Adoptive Identity Variables and Adolescent Career Exploration**

The models using principal components take into account all of the observed variables, but additional post-hoc analyses were run to examine if there were significant relationships between the indicator-level variables of adoptive identity, family integration, parent education, and career exploration.
(See Table 5 in Chapter 6 for indicator-level correlations between adoption-related variables and career exploration in research question 1). Both adoptive mothers’ and fathers’ education were negatively correlated with adoptive mothers’ scores of parental acceptance of the adopted adolescent (adoptive mother’s education $r = -.294, p < .001$; adoptive father’s education $r = -.228, p = .002$). Adoptive mothers years of education was negatively related to the depth of career exploration of the adopted adolescent ($r = -.165, p = .028$). These relationships were not statistically significant when entered into a regression model.

A one-way ANOVA testing for mean differences in indicator-level scores by age group (early adolescents versus older adolescents) showed that both breadth and depth of career exploration were higher in older adolescents compared to younger adolescents. Additionally, adoptive mothers of the older adolescents had fewer years of education than the younger adolescents. Table A.7 shows the significant mean differences between age groups on breadth, depth of career exploration as well as adoptive mothers’ years of education.

**C. Mediation of Career Exploration and Career Achievement Through Career Adaptability**

The second research question in this study examined whether the degree of career exploration was directly related to greater career achievement outcomes in adulthood, and whether these direct relationships were mediated by career adaptability in emerging adulthood. The principal component of career adaptability during emerging adulthood was entered as a mediator between adolescent career exploration and adult career achievement. There was no statistical evidence indicating an indirect effect of career exploration on career achievement through career adaptability (Table A.8). A multiple regression model was tested without a mediator, since the mediator of career adaptability was not significant in the previous model. As shown in Table A.9, when emerging adults engaged in higher career adaptability, this was related to greater career achievement in adulthood ($b = .390, p < .001$). Career exploration during adolescents was not related to emerging adulthood career adaptability or career achievement in adulthood.

When coding for career adaptability, there were two overarching dimensions: planning and exploration. A post-hoc regression was run to examine if planning items included within career adaptability, or exploration items included within career adaptability would be differentially related to career achievement. Using PCA, composite scores of planning items and exploration items were each created separately and included in a regression model predicting the PCA composite of career achievement.
Table A.2 shows the means, standard deviations and correlations of the separate career adaptability-related planning and exploration composites. As shown in Table A.11, when both composite scores during emerging adulthood along with career exploration during adolescence were included in the model, career exploration during emerging adulthood was significantly related to greater career achievement in adulthood ($b = .288, p = .012$).

1. Indicator-Level Analyses of Career Exploration, Career Adaptability, and Career Achievement

Indicator-level analyses were run to further explore if indicator-level variables were significantly related to the career achievement outcomes (Table A.10). Career exploration-in-breadth and career exploration-in-depth during adolescence were each tested in separate regression models to predict the three indicators of career achievement: the adopted adults’ ratings of job satisfaction, the degree to which the adopted adults’ perceived that their job was related to their long-term career or work goals, and the degree of match between the adult’s job and ultimate career goals. As shown in Table A.10, adolescent career exploration-in-breadth was significantly negatively related to a degree of match between the adult’s job and ultimate career goals ($b = -.567, p = .006$).

D. Moderation of Career-Related Variables by Post-Secondary Education Enrollment

The third research question in this study was to examine whether the mediated relationships between career exploration and career achievement, through career adaptability, was moderated by post-secondary education (PSE) enrollment status. A conditional process model was tested using a dichotomous moderator of enrollment status ($0 = \text{non-PSE enrolled}, 1 = \text{PSE-enrolled}$). There were 89 individuals included in the model tested due to the available data for enrollment status, with 52 individuals enrolled in post-secondary education, and 37 individuals not enrolled in post-secondary education. The results indicated that there were no significant interaction effects when PSE-enrollment status was included as a moderator of all three paths in the mediation model (Table A.12). Because the mediator of emerging adult career adaptability was not significant, a moderation model was tested with career exploration, career adaptability, and a moderator of post-secondary enrollment to predict career achievement. There was no evidence of significant moderation between post-secondary enrollment status and the two predictors (career exploration and career adaptability) of career achievement in adulthood. A main effects only model
(without interaction term) indicated that emerging adult career adaptability was significantly related to greater career achievement in adulthood ($b = .373, p < .001$) as shown in Table A.13.

A one-way ANOVA tested mean differences by PSE-enrollment status for career exploration during adolescence, overall career adaptability during emerging adulthood, the separate composite scores of career adaptability (planning and exploration during emerging adulthood), and adult career achievement. Table A.14 shows that overall emerging adults’ career adaptability was significantly greater for those enrolled in post-secondary education. Furthermore, emerging adults enrolled in post-secondary education had a higher mean score of career adaptability specific to the exploration items, than their non-PSE enrolled counterparts.

**E. Discussion of Appended Results**

The results of the follow-up analyses with a dataset using principal components and less imputed data showed comparable findings to the original analyses. In the first research question, examining the role of adoption-related factors and age to career exploration during adolescence, there were still no significant main effects of adoption-related factors to career exploration during adolescence, except the effect of age. Older adopted adolescents engaged in more career exploration compared to younger adopted adolescents. When examining indicator-level relationships, both adoptive mothers’ and fathers’ years of education were negatively related to parental acceptance of adopted adolescents. Adoptive mothers’ education was negatively related to depth of career exploration on the part of the adolescent. Together, it is unclear at this point what the significance of these relationships may be, but it may be worth exploring what other potential mediating factors could explain the relationship between parents’ years of education with parental acceptance and adolescent career exploration. Overall, there were no significant changes in the findings based on new analyses.

In the second research question, examining the longitudinal relationships between adolescent career exploration, emerging adult career adaptability, and adult career achievement, the results were consistent with the original analyses. With an updated sample size of 95 individuals, career adaptability was significantly related to greater career achievement in adulthood. There was no evidence of mediation of career adaptability, consistent with the original findings. Indicator-level analyses helped further examine the relationships between career exploration and career achievement. Career exploration in breadth was
negatively related to a greater degree of match between the adult’s job and ultimate career goals. This negative relationship appears counter-intuitive, given that past research has supported the notion that greater exploration assists in better career outcomes. It is possible that when adolescents are engaging in more of a breadth of exploration, this may not help consolidate or secure a pathway towards a career that matches a career goal. It is important to note that the total proportion of variance accounted by these predictors was very small, so the conclusions drawn from these findings are limited at best.

Additional analyses were included to further explore how emerging adult career adaptability – either based on planning-related items or exploration-related items – were related to career achievement in adulthood. It is notable that when career adaptability was coded separately for planning-related items and exploration-related items, and tested in a regression model along with adolescent career exploration, only career exploration during emerging adulthood was significantly related to career achievement in adulthood. It appears that career exploration that takes place during emerging adulthood may be more relevant towards helping adults achieve better career-related outcomes, not the exploration taking place as adolescents. The implications of this finding are that more attention should be focused on helping emerging adults engage in exploration to help facilitate better career achievement outcomes in adulthood. While planning may be important to help build steps towards a future career, emerging adults should attend to the options they have and take advantage of resources at their disposal to identify what career goals they have and how they can bring them into fruition.

Lastly, when examining if the longitudinal relationships between career exploration, career adaptability, and career achievement differed by post-secondary education enrollment, it was again found that post-secondary education did not change these relationships. There were mean differences by post-secondary education in that those enrolled in post-secondary education engaged in more career adaptability during emerging adulthood, specifically as it related to career exploration during this period of time. In a post-secondary education setting, there may be more opportunities for these individuals to take advantage of resources and explore career options, compared to those not in post-secondary educational institutions and settings. Consistent with the original analyses, the post-secondary enrollment status did not change outcomes in adulthood in terms of career achievement.
Overall, the findings of the follow-up analyses were not significantly altered based on the smaller dataset with less imputed data. The indicator-level analyses helped clarify some findings and highlighted potential areas of future exploration. For example, career exploration that takes place during adolescence and emerging adulthood may be different, given the differential relationships with career achievement in adulthood. Using qualitative data, one can better identify how these career exploratory processes are different during each stage of the adoptee’s life.
Table A.1
Descriptive Statistics and Correlations of Adoption and Career Exploration Principal Components at Wave 2

<table>
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<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
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<th>2</th>
<th>3</th>
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</thead>
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<td>1. Adoptive identity focus</td>
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<td>1.00</td>
<td>-1.74 – 2.93</td>
<td>-</td>
<td></td>
<td></td>
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<tr>
<td>2. Family integration</td>
<td>0.00</td>
<td>1.00</td>
<td>-2.65 – 2.00</td>
<td>-0.08</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>3. Parent education</td>
<td>0.00</td>
<td>1.00</td>
<td>-3.35 – 2.66</td>
<td>-0.09</td>
<td>-0.21**</td>
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<td>4. Adolescent career exploration</td>
<td>0.00</td>
<td>1.00</td>
<td>-1.73 – 2.58</td>
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<td>0.04</td>
<td>-0.03</td>
</tr>
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</table>

*Note. N = 177. Variables are principal components created in SPSS using multiple indicators.*
Table A.2
Descriptive Statistics and Correlations of Career Exploration, Adaptability, and Achievement Principal Components at Waves 2, 3, 4

<table>
<thead>
<tr>
<th>Variables</th>
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<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Adolescent career exploration</td>
<td>0.00</td>
<td>1.00</td>
<td>-1.99</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>2. EA career total adaptability(^a)</td>
<td>0.00</td>
<td>1.00</td>
<td>-2.57</td>
<td>0.01</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>3. EA career adaptability planning items</td>
<td>0.00</td>
<td>1.00</td>
<td>-2.24</td>
<td>0.06</td>
<td>0.85**</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>4. EA career adaptability exploration items</td>
<td>0.00</td>
<td>1.00</td>
<td>-2.25</td>
<td>-0.02</td>
<td>0.89**</td>
<td>0.53**</td>
<td>-</td>
</tr>
<tr>
<td>5. Adult career achievement</td>
<td>0.00</td>
<td>1.00</td>
<td>-2.35</td>
<td>-0.10</td>
<td>0.39**</td>
<td>0.32**</td>
<td>0.38**</td>
</tr>
</tbody>
</table>

Note. N = 95. Variables are principal components created in SPSS using multiple indicators. \(^a\)Total career adaptability component created with all planning and exploration items included. Separate career adaptability components were created using adaptability planning items (4 items) and adaptability exploration items (7 items).
Table A.3
Descriptive Statistics of Career Exploration, Adaptability, and Achievement Indicators at Waves 2, 3, 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Mean</th>
<th>SD</th>
<th>Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breadth of adolescent career exploration</td>
<td>2.21</td>
<td>0.68</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>Depth of adolescent career exploration</td>
<td>2.36</td>
<td>0.80</td>
<td>1.00 – 4.00</td>
</tr>
<tr>
<td>EA career adaptability planning item 1</td>
<td>1.09</td>
<td>0.65</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability planning item 2</td>
<td>1.15</td>
<td>0.58</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability planning item 3</td>
<td>0.94</td>
<td>0.58</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability planning item 4</td>
<td>0.94</td>
<td>0.73</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 1</td>
<td>1.69</td>
<td>0.53</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 2</td>
<td>1.08</td>
<td>0.78</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 3</td>
<td>1.03</td>
<td>0.64</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 4</td>
<td>1.27</td>
<td>0.59</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 5</td>
<td>1.36</td>
<td>0.62</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 6</td>
<td>0.88</td>
<td>0.58</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>EA career adaptability exploration item 7</td>
<td>1.27</td>
<td>0.66</td>
<td>0.00 – 2.00</td>
</tr>
<tr>
<td>Adult career achievement job satisfaction</td>
<td>4.06</td>
<td>0.82</td>
<td>1.00 – 5.00</td>
</tr>
<tr>
<td>Adult career achievement job match</td>
<td>3.80</td>
<td>1.16</td>
<td>1.00 – 5.00</td>
</tr>
<tr>
<td>Adult career achievement job relation to goal</td>
<td>2.36</td>
<td>0.81</td>
<td>1.00 – 3.00</td>
</tr>
</tbody>
</table>

Note. N = 95. EA = Emerging adulthood, Wave 3
Table A.5
Final Regression Model of Adoption Predictors and Career Exploration During Adolescence

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized coefficient</th>
<th>SE</th>
<th>Standardized coefficient</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adoptive identity focus</td>
<td>.046</td>
<td>.077</td>
<td>.046</td>
<td>.552</td>
</tr>
<tr>
<td>Family integration</td>
<td>.037</td>
<td>.078</td>
<td>.037</td>
<td>.638</td>
</tr>
<tr>
<td>Parent education</td>
<td>-.016</td>
<td>.078</td>
<td>-.016</td>
<td>.837</td>
</tr>
<tr>
<td>Constant</td>
<td>-1.00 E-01</td>
<td>.076</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td>.354</td>
<td></td>
<td></td>
<td>.552</td>
</tr>
</tbody>
</table>

*Note.* N = 177. Coefficient values are based on multiple linear regression of principal components created in SPSS using multiple indicators.
Table A.6
Final Regression Model of Adoption Variables and Career Exploration, with Adolescent Age Group Covariate

<table>
<thead>
<tr>
<th></th>
<th>Career Exploration</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized</td>
<td>SE</td>
<td>Standardized</td>
<td>p</td>
</tr>
<tr>
<td></td>
<td>coefficient</td>
<td></td>
<td>coefficient</td>
<td></td>
</tr>
<tr>
<td>Adoptive identity focus</td>
<td>.042</td>
<td>.072</td>
<td>.042</td>
<td>.559</td>
</tr>
<tr>
<td>Family integration</td>
<td>.054</td>
<td>.074</td>
<td>.054</td>
<td>.465</td>
</tr>
<tr>
<td>Parent education</td>
<td>.013</td>
<td>.074</td>
<td>.013</td>
<td>.864</td>
</tr>
<tr>
<td>Age group&lt;sup&gt;a&lt;/sup&gt;</td>
<td>.681</td>
<td>.146</td>
<td>.337</td>
<td>.000</td>
</tr>
<tr>
<td>Constant</td>
<td>-.285</td>
<td>.094</td>
<td>.003</td>
<td></td>
</tr>
<tr>
<td>Total R&lt;sup&gt;2&lt;/sup&gt;</td>
<td></td>
<td></td>
<td>.116</td>
<td></td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td>21.887, p &lt; .001</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note. N = 177. Coefficient values are based on multiple linear regression of principal components created in SPSS using multiple indicators...<sup>a</sup>Age group is based on early adolescents (age 11-15.99 years; n = 103) and late adolescents (age 16 – 21 years; n = 74).
Table A.7
One-Way ANOVA of Career Exploration and Adoptive Mothers’ Years of Education by Adolescent Age Groups

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Career Exploration(^a)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early adolescent</td>
<td>103</td>
<td>- .283</td>
<td>.894</td>
<td>22.104**</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>74</td>
<td>.394</td>
<td>1.01</td>
<td></td>
</tr>
<tr>
<td>Career exploration in breadth(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early adolescent</td>
<td>103</td>
<td>1.996</td>
<td>.694</td>
<td>11.625**</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>74</td>
<td>2.372</td>
<td>.766</td>
<td></td>
</tr>
<tr>
<td>Career exploration in depth(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early adolescent</td>
<td>103</td>
<td>2.018</td>
<td>.695</td>
<td>25.271**</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>74</td>
<td>2.593</td>
<td>.821</td>
<td></td>
</tr>
<tr>
<td>Adoptive mothers’ years of education(^b)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Early adolescent</td>
<td>103</td>
<td>15.381</td>
<td>2.275</td>
<td>4.642*</td>
</tr>
<tr>
<td>Late adolescents</td>
<td>74</td>
<td>14.638</td>
<td>2.243</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* Early adolescents (age 11-15.99 years) and late adolescents (age 16 – 21 years). *p* < .05, **p** < .01. \(^a\)Mean difference by PCA composite of career exploration. \(^b\)Mean difference by indicator-level scores.
Table A.8
Model Coefficients of Mediation Model of Career Exploration, Adaptability, and Achievement

<table>
<thead>
<tr>
<th></th>
<th>Adaptability</th>
<th>Achievement</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coefficient</td>
<td>SE</td>
</tr>
<tr>
<td>Exploration</td>
<td>a</td>
<td>.011</td>
</tr>
<tr>
<td>Adaptability</td>
<td></td>
<td>-</td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>.000</td>
</tr>
</tbody>
</table>

\[ R^2 = .000 \quad \text{F}(1, 93) = .012 (p = .913) \quad R^2 = .163 \quad \text{F}(2, 92) = 8.926 (p < .001) \]

Note. N = 95. Model coefficients are unstandardized values based on principal components entered into mediation model. \(a, b, c’\) are notations for each of the paths in the mediation model.
Table A.9
Final Regression Model of Career Exploration, Adaptability, and Achievement Composites Across Waves 2, 3, 4

<table>
<thead>
<tr>
<th>Adult Career Achievement</th>
<th>Unstandardized coefficient</th>
<th>$SE$</th>
<th>Standardized coefficient</th>
<th>$p$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent career exploration</td>
<td>-.106</td>
<td>.095</td>
<td>-.106</td>
<td>.269</td>
</tr>
<tr>
<td>EA career adaptability</td>
<td>.390</td>
<td>.095</td>
<td>.390</td>
<td>.000</td>
</tr>
<tr>
<td>Constant</td>
<td>1.00E-013</td>
<td>.095</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.163</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in F, $p$-value</td>
<td>16.715, $p &lt; .001$</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. $N = 95$. Coefficient values are based on multiple linear regression of principal components created in SPSS using multiple indicators.*
Table A.10
Final Regression Model of Career Exploration-in-Breadth, Career Exploration-in-Depth and Career Achievement Indicators across Waves 2, 3, 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Adult Job Match</th>
<th>Adult Job Satisfaction</th>
<th>Adult Job Relation to Goal</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$b$</td>
<td>SE</td>
<td>$B$</td>
</tr>
<tr>
<td>Adolescent career exploration-in-breadth</td>
<td>-.567</td>
<td>.200</td>
<td>-.333</td>
</tr>
<tr>
<td>Adolescent career exploration-in-depth</td>
<td>.218</td>
<td>.171</td>
<td>.149</td>
</tr>
<tr>
<td>Constant</td>
<td>4.541</td>
<td>.430</td>
<td>.000</td>
</tr>
<tr>
<td>Total $R^2$</td>
<td>.081</td>
<td></td>
<td>.028</td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td>1.619</td>
<td></td>
<td>.292</td>
</tr>
</tbody>
</table>

Note. $N = 95$. $b =$ unstandardized coefficient, $B =$ standardized coefficient.
Table A.11
Final Regression Model of Adolescent Career Exploration, Separate Emerging Adult Career Adaptability Composites, and Adult Career Achievement across Waves 2, 3, 4

<table>
<thead>
<tr>
<th>Variables</th>
<th>Unstandardized coefficient</th>
<th>SE</th>
<th>Standardized coefficient</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent career exploration</td>
<td>-.105</td>
<td>.096</td>
<td>-.105</td>
<td>.273</td>
</tr>
<tr>
<td>EA career adaptability - planning</td>
<td>.170</td>
<td>.113</td>
<td>.170</td>
<td>.135</td>
</tr>
<tr>
<td>EA career adaptability - exploration</td>
<td>.288</td>
<td>.113</td>
<td>.288</td>
<td>.012</td>
</tr>
<tr>
<td>Constant</td>
<td>1.001E-013</td>
<td>.095</td>
<td>1.00</td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td>.174</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td></td>
<td>6.541, p = .001</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Note. N = 95. EA = Emerging adulthood. Coefficient values are based on regression of principal components created in SPSS using multiple indicators. Career adaptability planning composite includes 4 items, career adaptability exploration composite includes 7 items.*
Table A.12
Model Coefficients of Conditional Process Model of Career Exploration, Adaptability, and Achievement, by Post-Secondary Education Enrollment Status.

<table>
<thead>
<tr>
<th></th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
<th>Coefficient</th>
<th>SE</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exploration</td>
<td>a</td>
<td>-.090</td>
<td>.188</td>
<td>.633</td>
<td>c'</td>
<td>-.048</td>
</tr>
<tr>
<td>Adaptability</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>b</td>
<td>.433</td>
<td>.130</td>
</tr>
<tr>
<td>PSE status</td>
<td>.613</td>
<td>.215</td>
<td>.006</td>
<td>-1.64</td>
<td>.201</td>
<td>.417</td>
</tr>
<tr>
<td>Explore x PSE</td>
<td>.109</td>
<td>.227</td>
<td>.633</td>
<td>-.104</td>
<td>.203</td>
<td>.608</td>
</tr>
<tr>
<td>Adapt x PSE</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-.127</td>
<td>.194</td>
<td>.514</td>
</tr>
<tr>
<td>Constant</td>
<td>-.342</td>
<td>.165</td>
<td>.041</td>
<td>.189</td>
<td>.153</td>
<td>.220</td>
</tr>
</tbody>
</table>

\[
R^2 = .089 \\
F(3, 85) = 2.758 (p = .047)
\]

\[
R^2 = .175 \\
F(5, 83) = 3.512 (p = .006)
\]

Note. N = 89. Model coefficients are unstandardized values based on principal components entered into process model. PSE = Post-secondary education status. a, b, c' are notations for each of the paths in the conditional process model.
<table>
<thead>
<tr>
<th></th>
<th>Adult Career Achievement</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unstandardized coefficient</td>
<td>SE</td>
<td>Standardized coefficient</td>
<td>p</td>
</tr>
<tr>
<td>Adolescent career exploration</td>
<td>-.122</td>
<td>.093</td>
<td>-.131</td>
<td>.191</td>
</tr>
<tr>
<td>EA career adaptability</td>
<td>.373</td>
<td>.096</td>
<td>.403</td>
<td>.000</td>
</tr>
<tr>
<td>PSE</td>
<td>-.159</td>
<td>.199</td>
<td>-.083</td>
<td>.427</td>
</tr>
<tr>
<td>Constant</td>
<td>.164</td>
<td>.149</td>
<td>.273</td>
<td></td>
</tr>
<tr>
<td>Total R²</td>
<td></td>
<td></td>
<td></td>
<td>.168</td>
</tr>
<tr>
<td>Change in F, p-value</td>
<td></td>
<td></td>
<td>.637</td>
<td>.427</td>
</tr>
</tbody>
</table>

*Note.* Coefficient values are based on regression of principal components created in SPSS using multiple indicators. EA = Emerging adulthood. PSE = Post-secondary education enrollment (n = 52) and Non-PSE (n = 37).
Table A.14
One-Way ANOVA of Career Exploration, Separate Career Adaptability Composites, and Career Achievement by Post-Secondary Education Enrollment Status

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>F-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adolescent career exploration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.071</td>
<td>1.105</td>
<td>.420</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.071</td>
<td>.882</td>
<td></td>
</tr>
<tr>
<td>EA career adaptability&lt;sup&gt;a&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.272</td>
<td>.864</td>
<td>8.187*</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.335</td>
<td>1.140</td>
<td></td>
</tr>
<tr>
<td>EA career adaptability planning&lt;sup&gt;b&lt;/sup&gt;</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.127</td>
<td>.966</td>
<td>1.479</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.142</td>
<td>1.108</td>
<td></td>
</tr>
<tr>
<td>EA career adaptability exploration</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.307</td>
<td>.885</td>
<td>10.686*</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>-.376</td>
<td>1.083</td>
<td></td>
</tr>
<tr>
<td>Adult career achievement</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSE</td>
<td>.098</td>
<td>.914</td>
<td>.061</td>
</tr>
<tr>
<td>Non-PSE</td>
<td>.047</td>
<td>1.010</td>
<td></td>
</tr>
</tbody>
</table>

*Note.* EA = Emerging adulthood. PSE = Post-secondary education enrollment (n = 52) and Non-PSE (n = 37). *p* < .01. <sup>a</sup>Total career adaptability component created with all planning and exploration items included. <sup>b</sup>Separate career adaptability components were created using adaptability planning items (4 items) and adaptability exploration items (7 items)
BIBLIOGRAPHY


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