

## ABSTRACT

Title of Document: THE ROLE OF IMPLICIT SELF-CONCEPT IN PLANNING FOR CAREER AND FAMILY IN UNDERGRADUATE WOMEN

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Married women are more likely to leave careers and take on domestic labor responsibilities than their partners. This contributes to gender inequality in the workforce. The current investigation sought to understand this phenomenon by examining factors contributing to career and family planning in college-aged women. A novel Implicit Associations Test (IAT) examined the degree to which implicit self-concept explains variance beyond explicit measures of gender in willingness to compromise career for family, and chore division expectations. Eighty-six undergraduate women completed the IAT and a computer survey. Hierarchical multiple regression analyses found no relationship between the IAT and other variables. However, participants expected to perform more chores than ideally desired, and a positive relationship emerged between egalitarian gender role expectations and egalitarian ideal chore division. In post-hoc analyses, high expressivity related to egalitarian chore division expectations, and willingness to sacrifice career for children. Recommendations for future research and practice are discussed.

THE ROLE OF IMPLICIT SELF-CONCEPT IN PLANNING FOR CAREER AND FAMILY  
IN UNDERGRADUATE WOMEN

By

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## CHAPTER I

### Introduction

Despite high levels of women's participation in the workforce, occupational inequality between women and men is still prevalent. Women, but not men, tend to make career related decisions based on their desire to be available to care for their children and be present for their partner, and women are far more likely than men to interrupt their career once they have children (Abele & Spurk, 2011; Buddeberg-Fischer et al., 2010; Danzinger & Eden, 2007; Evers & Sieverding, 2013; Ferriman, Lubinski, & Benbow, 2009; Ganginis Del-Pino, O'Brien, Mereish, & Miller, 2013; Hewlett & Luce, 2005). Unsurprisingly, it has been consistently shown that married women assume more family responsibilities than men, and perform more household and childcare chores than their partners (Abele & Spurk, 2011; Hewlett, 2002; Lachance-Grzela & Bouchard, 2011; U. S. Bureau of Labor Statistics, 2008). This holds true even when both partners are working full time, and in cases in which the wife is the primary bread winner (Hewlett, 2002). Research findings indicate that even young, college aged women expect to disrupt their future career due to childcare responsibilities (Schroeder, Blood, & Maluso, 1992), and that college students of both genders expected working mothers to be the primary caretakers for their children when they are at home (Riggs, 2005).

As a result, many young women make career choices while taking into account that they should be available for their future family, and select career traditionally held by women. These careers sometimes offer more flexibility, but tend to be lower paying and of lower prestige than occupations held primarily by men. In 2011, women were overrepresented as preschool and kindergarten teachers (98%), nurses (91%), and secretaries and administrative assistants (95%).

By contrast, only 14% of architectural and engineering positions, and 26% of computer and mathematical occupations were held by women (U. S. Bureau of Labor Statistics, 2012).

Given the influence that compromising for partner and children appears have on women's career development, it is imperative to understand the willingness of young women, who do not yet have a partner or children, to compromise their future careers for future family responsibilities. The current study examined the degree to which gender role orientation, gender role expectations, and implicit self-concept with regard to family and career were predictive of willingness to compromise career for future family and chore division expectations of college aged women.

### **Theoretical Foundation**

The current study was grounded in two theories of career decision making and vocational development, the Dual Impact Model (Abele, 2000) and the Model of Achievement-Related Choices (Eccles, 1987). The Dual Impact Model explains career decision making as a process comprised of both inside and outside perspectives of gender. The model views gender as a socially constructed category that impacts both the behavior of a person and the behavior of the environment in which the person interacts (Abele, 2000).

The inside perspective refers to the way that a person conceptualizes themselves in terms of gender roles, also known as gender role orientation (Abele, 2000). This can be thought of as intragroup gender differentiation, or in other words, how people see themselves in relation to their gender category, and the types of gendered traits that they associate with themselves. The model's outside perspective refers to the way outsiders in an individual's environment perceive gender roles, and the gender role expectations that an individual experiences from their environment. This can be looked at as the different expectations that people have for women and

men. The inside and outside perspectives of gender have a reciprocal relationship with behaviors. When behavior confirms gendered beliefs, they are strengthened. However, if a person is confronted with many situations opposing their gender role orientation or expectations, it may lead to a change in their understanding of gender (Abele, 2000).

Career-related decisions, as well as family-related decisions are dependent on a person's inside and outside perspectives of gender and the perceptions they have of themselves as gendered individuals (Abele, 2000). Furthermore, an individual's opportunities will differ depending on their gender role orientation and expectations they are presented with from their environment. Any decisions are made within these opportunity structures, and are thus influenced by an individual's inside and outside perspectives (Abele, 2000).

Eccles (1987), in her Model of Achievement-Related Choices, posited that career decision-making is influenced by the centrality of specific aspects of an individual's identity, or self-concept. In this model, individuals make behavioral choices by weighing their expectations of success, and the value that they assign to each behavioral option (these are called subjective task values). Similar to the Dual Impact model, self-concept and behavioral choices are reciprocal. The implications of behavioral choices, which an individual makes by taking into account subjective task values according to self-concept, will inform further development of an individual's perception of her or himself and of social roles (Eccles, 1987). Subjective task values are influenced by social constructs because these constructs inform individuals' sense of self. For example, gender impacts subjective task values associated with career and family related behavioral choices because men and women view parental roles differently according to gendered socialization. Therefore, even if men and women hold parenthood as an equally salient

aspect of their self-concept, their family and career related decisions would be different (Eccles, 2009).

### **Self-Concept with Regard to Career and Family**

Self-concept can be understood as individuals' overall evaluation of themselves and understanding of their characteristics (Eccles, 1994). Modern self-concept research views self-concept as a multi-faceted construct, which should be measured specifically rather than globally, according to the focus of research (Marsh, 1990). Individuals make decisions that align with their self-concepts, including career and family related decisions (Eccles, 1994; Richardson, 1975). However, it has been found that in certain domains, including women's career decision making, behavior and self-concept are incongruent (Greenwald & Farnham, 2000; Richardson, 1975). This is because gender related issues are socially sensitive, and their measurement is prone to biases of social desirability and subject naivety (Devos, Diaz, Viera, & Dunn, 2007; Greenwald & Farnham, 2000; Rudman, Greenwald, & McGhee, 2001b).

**Implicit attitudes.** Implicit attitudes research attempts to indirectly access and measure socially sensitive attitudes. Using indirect methods, it is possible to access attitudes that are not susceptible to conscious manipulation (Devos et al., 2007), thus overcoming the known problems of self-report measures (Greenwald, Poehlman, Uhlmann, & Banaji, 2009). For example, previous research found discrepancies between explicit and implicit self-concept relating to gender role orientation (Greenwald & Farnham, 2000). Research with undergraduate women also has shown discrepancies between explicit and implicit measures of self-concept with regard to college education and motherhood. Although participants endorsed a stronger explicit identification with college education, they implicitly identified more strongly with motherhood (Devos et al., 2007).

The most widely used and studied measure in implicit attitudes research is the Implicit Associations Test (IAT). In an extensive meta-analysis of studies that used the IAT to measure racial attitudes, this measure had better predictive validity of behavioral outcomes than self-report inventories. Implicit measures also have been shown to be effective in predicting behavior, judgment, and physiological outcomes (Greenwald et al., 2009). Implicit measurement of self-concept in relation to family or career has yet to be studied in the context of career development, and could provide valuable information into processes related to career and family decision-making. By going beyond explicit forms of measurement, the IAT could access aspects of self-concept that would otherwise be distorted by self-report biases and allow better understanding of career and family related outcomes.

### **Gender Role Orientation and Expectations**

Gender role orientation is the way individuals perceive themselves in terms of gendered traits (Abele, 2000). In 1981, Bem divided personality traits into feminine and masculine categories (also known as instrumentality and expressivity). Traits such as “sympathetic” and “warm” are perceived as related to femininity, and known as expressive traits. On the other hand, traits such as “assertive” and “competitive” are perceived as related to masculinity, and known as instrumental traits. High levels of instrumental traits have been linked with strong career aspirations in women (Gray & O’Brien, 2007) and positive career outcomes in both status and salary in both women and men (Abele, 2000; Abele, 2003; Abele & Spurk, 2011; Evers & Sieverding, 2013).

Gender role expectations are the gendered expectations that an individual holds of others in his or her environment, and are influenced by societal norms (Abele, 2000). These expectations have been shown to impact family and career-related decisions and behaviors in

women and men (Askari et al., 2010; Erchull et al., 2010; Kaufman, 2005; Kaufman and Uhlenberg, 2000). For example, women with egalitarian gender role expectations were less willing to be homemakers and desired to perform fewer household and childcare chores than their traditional counterparts (Askari et al., 2010; Kaufman, 2005; Kaufman & Uhlenberg, 2000).

### **Planning for Future Career and Family Roles**

As outlined above, both the Dual Impact Model (Abele, 2000) and the Model of Achievement Related Choices (Eccles, 1987) provide theoretical frameworks that align with the phenomenon of women compromising their career for their children and partners. This is supported by studies which have found that women, but not men, tend to make career-related decisions based on their desire to be available to care for their children and be present for their partner (Ferriman et al., 2009; Abele & Spurk, 2011).

For example, Ferriman et al., (2009) showed that women in the fields of science, technology, engineering, and math tended to make career decisions based on priorities such family, community, and flexible work schedules, while men did not. This resulted in women holding less prestigious positions than their male counterparts, and leaving their careers altogether (Ferriman et al., 2009). Similarly, while men's career success was found to be independent from parenthood, women reduced their work hours once they became mothers, which negatively impacted their career trajectories in terms of salary as well as status (Abele & Spurk, 2011).

Research findings indicate that college aged women with no family showed expectations to participate in more chores than their future partners, and to participate in more chores than they ideally wanted (Askari et al., 2010). Furthermore, Fetterolf and Eagley (2011) showed that

college aged women expected to earn less, and perform more household chores, than their future male partners, even when anticipating to work full time.

Examining willingness to compromise career for future children and partner and chore distribution expectations provided an opportunity to better understand women's early stage career decision-making, and the way in which women plan for family and career before either one is developed.

### **Summary**

Undergraduates of both genders expect mothers to be the primary caretakers of their children, and young women expect to earn less, and assume more household and family responsibilities than their future partners. This contributes to inequality between women and men in the workforce, and to the overrepresentation of women in low pay, low prestige occupations. The current investigation sought to better understand this gendered phenomenon by examining factors contributing to career- and family-related variables in college-aged women. Namely, the degree to which implicit self-concept explained additional variance beyond explicit measures of gender role orientation and gender role expectations in willingness to compromise career for future partner and children, and chore division expectations were investigated. An IAT was designed to measure family and career as aspects of self-concept.

## **CHAPTER II**

### **Literature Review**

The literature review will be divided into four sections. The first section will provide an overview of the two theories in which the current study is grounded, the Dual Impact Model (Abele, 2000) and the Model of Achievement-Related Choices (Eccles, 1987). The next section will examine self-concept with regard to career and family, including a review of existing research on self-concept and women's career development, and the development of an original measure of implicit self-concept unique to this study. The third section will examine two predictors of career and family related outcomes, gender role orientation and gender role expectations, and the final section will review outcome variables related to career and family development, willingness to compromise career for future children or partner, and household and childcare chore distribution expectations.

### **Theoretical Foundation**

The current study is grounded in two theories of career decision making and vocational development, the Dual Impact Model (Abele, 2000) and the Model of Achievement-Related Choices (Eccles, 1987).

#### **The Dual Impact Model**

Abele (2000) introduced the Dual Impact Model as a theoretical framework that could explain issues related to gender and career decision making, and views gender as a socially constructed category as well as a developmental psychology phenomenon. According to the model, gender is comprised of an inside perspective; an individual's gender identity, and an outside perspective; the gendered expectations of the society within which the individual

interacts. Both perspectives influence decisions impacted by gender, including career and family related decisions (Abele, 2000).

The inside perspective, also referred to as gender role orientation, is a person's conceptualization of themselves in terms of gender roles (Abele, 2000). This can be more easily understood in terms of intra-group gender differentiation, or how a person sees themselves in relation to their gender, and which gendered traits they associate with themselves. The internal perspective is an individual's gender self-concept, which is one aspect of general self-concept (Abele, 2003). In this theory, gender self-concept is defined as the extent to which an individual possesses stereotypical feminine or masculine traits, as defined by Bem (1981).

The outside perspective is comprised of social expectations related to gender roles in an individual's environment. This can be looked at as intergroup differences between the genders, or the different expectations that people have for women and men as defined by their distinct gender categories. Each individual will experience societal expectations which will differ based on their gender and the way the society in which they live in views gender. A person will hold a gender role orientation (the inside perspective), and gendered expectations of others (an outside perspective), but there might not be a strong relationship between the two (Abele, 2000).

The inside and outside perspectives of gender influence decision making, including career and family-related decision making (Abele, 2000). However, the opportunities for decision making which an individual encounters will differ according to their gender role orientation and the expectations they experience from their environment. The inside perspective influences an individual's interests, goals, and expectations, while the outside perspective impacts the way society views them, and the opportunities that are available to them. The dual impact of environment and personal gender self-concept creates a certain structure of

opportunity. Any decisions, including those pertaining to career and family, are made within these opportunity structures, and thus are influenced by both perspectives (Abele, 2000).

The inside and outside perspectives of gender have a reciprocal relationship with behaviors. When a certain behavior confirms an individual's gender orientation or expectations, they are strengthened, creating a positive feedback loop in which beliefs and behaviors are continuously supported. However, encountering many situations or examples that are opposed to an individual's gender role orientation or expectations challenge their beliefs about gender, and may lead to a change in their understanding of gender (Abele, 2000). The reciprocal relationship of the internal perspective of the Dual Impact Model and behavior was demonstrated by Abele (2003) in a study that focused on the reciprocal relationship of agency and communion with social roles. Data were collected twice from a large sample of women and men, once when they graduated college (Time 1), and once 18 months later (Time 2). Not only did agency at Time 1 predict career success at Time 2 such that more instrumental individuals were more successful in their careers, but career success in Time 2 also was related to an increase in instrumentality in Time 2 compared to Time 1 (Abele, 2003).

The Dual Impact Model has been applied successfully in research on career outcomes such as income, and career-related psychological variables such as achievement motivation (Abele, 2000; Abele, 2003; Abele & Spurk, 2011). Past research has focused on the inside perspective (gender role orientation), but the outside perspective (gender role expectations) has been regarded as completely external to the individual. In the current study, the outside perspective was examined in addition to the inside perspective, and was measured as the participants' internalization of gendered expectations in their environment.

### **The Model of Achievement Related Choices**

The Model of Achievement Related Choices was developed by Eccles (1987), and is based on Atkinson's (1964) Expectancy-Value Theory. According to Eccles, an individual's self-concept is made up of many different characteristics, with some being more central to identity than others. Individuals make decisions by weighing their expectations to fail or succeed in each specific outcome, and by taking into account aspects of their self-concept. Each possible behavioral outcome is assigned a value, also known as a subjective task value. Aspects that are more central in a person's self-concept will be more salient to them, and will have a larger impact on subjective task values (Eccles, 1994).

Subjective task values vary between individuals, but are also influenced by social constructs such as gender. For example, someone who holds parenthood as a central part of her or his self-concept will have different subjective task values than someone who holds career as a central part of her or his self-concept. However, holding parenthood as a central part of self-concept will have a different impact on women's and men's subjective task values (Eccles, 2009). Women tend to perceive career and parenthood as competing constructs, and men tend to perceive career and parenthood as compatible constructs. Therefore, women who view parenthood as central to their identity might place lower subjective task value on career-related tasks than men who view parenthood as central to their identity, and thus, will make different career-related decisions (Eccles, 2009).

According to Eccles, women will rank the importance of parenting and spouse support roles higher than professional career roles due to social constructions of gender roles. Men will rate both equally highly because these roles are not in competition for them. For men, success as parents can be defined as an extension of their professional career role because being a good

father could mean providing for a family through having a successful career. For women, valuing the parental role highly will lead to a decrease in her commitment to career goals because society views motherhood as incompatible with having a successful career (Eccles, 2009). This was shown in the results of a 1994 study in which female high school students placed a higher value on the importance of making occupational sacrifices for a family than male high school students (Eccles, 1994).

Similarly to the Dual Impact Model, self-concept and behavioral choices in this model of career development are reciprocal (Eccles, 1987). Individuals make behavioral choices by taking into account parts of their self that are especially salient to them and form their self-concept. However, a person's self-concept is not static, but dynamic, and can change over time or contexts (Eccles, 2009). The implications of an individual's behavioral choices will inform further development of their self-concept and of social roles (Eccles, 1987).

Societal values and internalization of gender related constructs are key elements in both theories of career development in which the study is grounded (Abele, 2000; Eccles, 1987). Individuals internalize constructs and schemas related to gender and gender roles as they are socialized (Abele, 2000; Eccles, 1987), and these internalizations influence the way they perceive themselves. Finally, it is important to note that often, career research evaluates women's success in terms a "female deficit" perspective, and compares women to a male standard of ideal achievement (Eccles, 1987). The current study does not operate from this framework; rather, success in career and family domains for both women and men is viewed as dependent on an individual, not their gender.

### **Self-Concept with Regard to Career and Family**

Self-concept can be defined as individuals' overall evaluation of themselves and their understanding of their characteristics (Eccles, 1994). Early self-concept research viewed the construct as global, positing that each individual had a sense of self concept that influenced their experiences and choices, and could be accessed and measures. However, modern self-concept research views self-concept as a multi-faceted construct which includes many different aspects of varying salience to the individual. For example, someone might see themselves as an employee and a mother simultaneously, and each construct will influence different behavioral choices at different points in time. Therefore, self-concept should be measured specifically, rather than globally, and according to the focus of research (Marsh, 1990). Accordingly, self-concept in the current study focused on the way individuals perceive themselves in terms of career and family. The salience of the career domain, the family domain, both, or neither, will determine self-concept in regard to career and family.

#### **Explicit and Implicit Facets of Self-Concept**

**Explicit self-concept.** Individuals are motivated to make choices congruent with their self-concept, and validate their self-concept through behavioral choices (Eccles, 1987; Richardson, 1975). Based on this assumption, Richardson (1975) sought to examine the relationship between self-concept and career orientation by having participants complete explicit measures of both variables. She posited that women who had self-concept tied to career would be career-oriented, and that women who had self-concept tied to family would be family-oriented. Surprisingly, although women with self-concept strongly tied to family were indeed family-oriented, women with self-concept strongly tied to career were not more career-oriented than their peers.

Self-concept is related to the psychological construct of role salience (also known as identity salience) because both examine the extent to which a certain facet, such as career or family, is salient within an individual's identity. However, role salience is defined as importance and commitment to a role (Katz Wise et al., 2010) and measures of role salience often assess the extent to which individuals allocate resources, such as time and effort, to different roles (Amatea, 1986; Cinamon & Rich, 2002; Katz Wise et al., 2010). In this study, self-concept related to family and career is assessed without considering planned allocation of resources or commitment. According to the two models forming the theoretical base of the current study, self-concept and social structures work together to influence and inform behavioral choices, such as allocation of resources (Abele, 2000; Eccles, 1987).

**Implicit attitudes.** The incongruent results obtained by Richardson (1975) could be explained through better understanding the nature of explicit measurement. While directly asking participants about their attitudes, self-esteem, or self-concepts is convenient and widespread in the field of psychology, it also is problematic in certain cases. Measuring explicit, socially sensitive constructs might be influenced by self-report biases such as social desirability or limited self-knowledge (Greenwald, Mcghee, & Schwartz, 1998; Greenwald et al., 2009). Thus, finding ways to access implicit attitudes would make it possible to overcome known problems in using self-report measures.

To address these issues, researchers looked for ways to access unconscious attitudes that are not susceptible to direct manipulation, also known as implicit attitudes. Measurement of implicit attitudes is indirect, and does not involve explicitly asking participants about their beliefs (Devos et al., 2007; Greenwald et al., 1998; Greenwald et al., 2009). The Implicit Associations Test (IAT) is the most commonly used and widely studied measure of implicit

attitudes. In the IAT, participants are asked to pair different categories of stimuli on a computer, and their reaction times are recorded and analyzed (Greenwald et al., 1998). For example, a comparison of reaction times of participants who pair the race categories “black” and “white” with the valence categories “good” and “bad”, can access racial attitudes that are not evident in explicit measures (Greenwald et al., 1998). The race IAT was found to have better predictive validity than self-report inventories in behavioral outcomes, successfully predicting variables such as body orientation in relation to a person of another race and likelihood to vote for a presidential candidate. Implicit measures also have been shown to be effective in predicting judgment, and physiological outcomes. Both the IAT and self-report measures added unique variance to the outcomes, and the more discrepancies between them, the greater the predictive validity of each one (Greenwald et al., 2009).

Critics of implicit attitudes research question the validity of indirect measures, and warn that they may be capturing basic cognitive processes as opposed to implicit attitudes (Gawronski, LeBel & Peters, 2007). A comparative study of different methods measurement of implicit self-esteem (association of the self with words related to “good” and bad”) revealed problems in a number of measures, however the IAT displayed internal reliability and stability across time. It was also the only measure that correlated in the expected direction with explicit measures (Bosson, Swann, & Pennebaker, 2000). Research has also found implicit self-esteem and implicit self-concept as significant predictors of clinical and behavioral outcomes (Cin, Gibson, Zanna, Shumate, & Fong, 2007; Franck, De-Raedt, & De-Houwer, 2007; Nock et al., 2010). Depressed individuals had lower implicit self-esteem than non-depressed individuals or those who had been depressed in the past, and implicit self-esteem successfully predicted depressive symptoms over the next six months (Franck et al., 2007). Furthermore, implicit self-concept in relation to death

and suicide was a better predictor of suicide attempts over a period of six months than other known risk factors, predictions made by clinicians, and even predictions made by the participants themselves (Nock et al., 2010).

Research has shown that changes in implicit attitudes can be achieved through repeated exposure to stimuli or information over a long period of time, which creates new automatic associations (Bohner & Dickel, 2011; Gawronski & Bodenhausen, 2006; Gawronski & LeBel, 2008; Rydell & McConnell, 2006; Rudman, Ashmore, & Gary, 2001a). For example, implicit racial bias was successfully reduced in a group of students who attended a 14-week seminar in diversity training, compared to a control group (Rudman et al., 2001a).

**Explicit and implicit attitudes in gender and career research.** Racial attitudes are often measured implicitly because they are socially sensitive, making them especially susceptible to report biases and impression management (Greenwald et al., 2009). Gender-related issues have been shown to be similarly sensitive, and research has found gaps between explicit and implicit measures of gender-related constructs, including facets of self-concept related to gender (Devos et al., 2007; Greenwald & Farnham, 2000; Rudman et al., 2001b). For example, men's implicit self-esteem was affected negatively by their female partner's success while women's self-esteem showed no such impact, even though no such effect was detected by using explicit measures (Ratliff & Oishi, 2013). Another series of studies determined that explicit measures of gender role orientation revealed differences between gender self-concept of women and men. However, measuring gender self-concept implicitly resulted in more than triple the average effect size of the explicit measure and it was determined through factor analysis that explicit and implicit gender self-concept were separate constructs (Greenwald & Farnham, 2000).

As previously theorized in the Dual Impact Model (Abele, 2000) and the Model of Achievement Related Decisions (Eccles, 1987), decision making related to family and career is strongly tied to gender-related constructs. Therefore, it is not surprising that discrepancies have been found between explicit and implicit measures of career and family related variables for over 30 years (Cochran, 1983; Devos et al., 2007; Park, Smith, & Correll, 2010). In 1983, Cochran found that career rankings of high school seniors was only weakly related to explicit career value rankings, but strongly linked to implicit value rankings (Cochran, 1983). More recently, research with undergraduate women and men found that women implicitly associated themselves with a parenting role to a greater extent than men. Furthermore, the strength of the association of women with a childcare role and men with a professional role was related to the way in which participants opted to solve a hypothetical work-family conflict. Participants with more traditional implicit attitudes preferred to solve such conflicts in a traditional fashion, prioritizing the domestic sphere for women and a professional sphere for men (Park et al., 2010).

### **Implicit Self-Concept with Regards to Family and Career**

When individuals view certain aspects of their identity as particularly salient, they become central and makes up facets of those individuals' self-concept (Eccles, 2009). Therefore, self-concept in relation to family and career can be defined as the extent to which an individual associates themselves with family and with career. Additionally, non-conscious processes are a key element in Kreishok, Black, and McKay's trilateral model of career decision making (2009). The model emphasized the limits of rational thought and included intuitive components in order to explain how career decision making occurs. The construct of implicit self-concept was examined in 2007, when research with undergraduate women found discrepancies between explicit and implicit measures of self-concept with regard to college education and motherhood.

Although participants explicitly endorsed a stronger identification with college education, they implicitly identified more strongly with motherhood. This result was surprising given the fact that most of the participants were not mothers, or even married, at the time of the study (Devos et al., 2007).

Block (2012) attempted to measure implicit identification with career and family in an experiment examining the effect that priming with different types of male exemplars had on undergraduates' self-concept in relationship to family or career, but did not find the expected effect. One reason might be that implicit attitudes have been shown to be stable over time, and unlikely to change as a result of exposure to one exemplar. While explicit attitudes can be fast-changing in response to new information, implicit attitude change typically occurs through a slow process of repeated exposure to new information (Rydell & McConnell, 2006).

Furthermore, Block (2012) based the implicit measure in the experiment on a measure used by Park and colleagues in 2010. This measure incorporated mixed stimuli of words and pictures, in which the pictures represented the categories "family" and "career". Neither Block (2012) nor Park et al. (2010) reported testing the pictorial stimuli on focus groups prior to using them in their studies. Participants may have interpreted the images in ways the researchers did not anticipate, or judged them on aspects other than the intended categories.

In the current study, implicit self-concept related to family and career was treated as a stable trait, and was measured by an IAT created specifically for the study. The measure was created by combining two existing, reliable, and valid tests: The Gender-Career IAT (Nosek, Banaji, & Greenwald, 2002), and The Self-Concept IAT (Greenwald & Farnham, 2000). If implicit self-concept does, indeed, impact career decision making, then career interventions should reflect this and take it into account. Implicit attitudes are slow changing and respond to

prolonged, repeated exposures (Bohner & Dickel, 2011; Gawronski & Bodenhausen, 2006; Gawronski & LeBel, 2008; Rydell & McConnell, 2006; Rudman et al., 2001a). Therefore, possible interventions could include a semester long seminar for undergraduate women focused on presenting examples of women with successful careers, or a semester long career mentorship program for undergraduate women.

### **Predictors of Career and Family Related Outcomes**

#### **Gender Role Orientation**

The inside perspective of the Dual Impact Model (Abele, 2000) is defined as gender self-concept, or gender role orientation. Socialization processes of gender often result in traits such as “sympathetic” and “warm” being perceived as feminine, and women possess and exhibit more of these characteristics than men. On the other hand, men are more likely to endorse traits such as “assertive” and “competitive”. In gender role research, gendered traits are divided into expressive (feminine) traits and instrumental (masculine) traits (Bem, 1981). Although questions have been raised regarding the relevance of this distinction given social changes in perceptions of gender over the years, studies have shown that college students’ perceptions of gender roles have remained stable (Holt & Ellis, 1998; Street, Kimmel, & Kromrey, 1995), so that expressive and instrumental traits continue to be associated with femininity and masculinity respectively.

Gender role orientation in young adults has been changing over the past few decades. Social roles, for example, have been shown to influence gender role orientation. For example, individuals exhibited more instrumental traits when they were in dominant position, such as with a supervisee, and more expressive traits when they were in a submissive position, such as with a boss (Moskowitz, Suh, & Desaulniers, 1994). Instrumentality has been shown to be more susceptible to change than expressivity (Abele, 2003), and has been rising consistently in both

women and men. A similar trend has not been observed in expressive traits, which are still higher in women than in men (Spence & Buckner, 2000).

Studies in the field of career development research have linked high instrumentality with high career aspirations (Gray & O'Brien, 2007) and career success (Abele, 2000; Abele & Spurk, 2011, Evers & Sieverding, 2013). In testing the Dual Impact Model, Abele (2000) found that high instrumentality also predicted strong career motivation and occupational self-efficacy. Instrumentality is linked with both objective and subjective career success, so that women with higher instrumentality were not only more successful than women low in instrumentality in objectively measurable aspects of success, such as salary and status, but they also rated themselves as having a more successful career relative to others in their field (Abele, 2003).

### **Gender Role Expectations**

According to Abele's Dual Impact Model, gender role expectations are the schemas of gender categories that an individual holds of other people, which are influenced by societal definitions of gender (Abele, 2000). An individual's definition or understanding of what it means to be a man or a woman contains within itself many expectations that come into play when they interact with men or women. For example, if someone believes that women are warm, they will expect women with whom they interact to display traits and behaviors that are in line with their expectation of warmth. Gender and career related research often defines gender role expectations on scales of traditionality or egalitarianism (Askari, Liss, Erchull, Staebell, & Axelson, 2010., 2010; Kaufman, 2005; King & King, 1997).

Gender role expectations have been shown to influence family and career related decisions and behaviors in men and women (Askari et al., 2010; Erchull et al., 2010; Kaufman, 2005; Kaufman and Uhlenberg, 2000). For example, men with egalitarian gender role expectations

worked fewer hours, were more willing to be homemakers, expressed less of a desire for their wives to be homemakers, and were willing to perform more household and childcare chores than men with traditional views (Askari et al., 2010; Erchull et al., 2010; Kaufman, 2005; Kaufman and Uhlenberg, 2000). Women with more egalitarian gender role expectations were less definitive in future plans to marry or have children, wanted to marry at a later age, were less willing to be homemakers, and desired to perform less household and childcare chores than their traditional counterparts (Askari et al., 2010; Erchull et al., 2010; Kaufman, 2005; Kaufman & Uhlenberg, 2000).

### **Outcomes related to Career and Family Decision Making**

#### **Willingness to Compromise Career for Future Partner or Children**

Both the Dual Impact Model (Abele, 2000) and the Model of Achievement Related Choices (Eccles, 1987) provide theoretical framework that can explain the phenomenon of women compromising their career for their children and their partners. This is supported by studies that have found that women, but not men, tend to make career-related decisions based on their desire to be available to care for their children and be present for their partner. Women are far more likely than men to interrupt their career once they have children, and often leave the workforce either temporarily or permanently (Abele & Spurk, 2011; Buddeberg-Fischer et al., 2010; Danzinger & Eden, 2007; Evers & Sieverding, 2013; Ferriman, et al., 2009; Ganginis Del-Pino et al., 2013; Hewlett & Luce, 2005; Maines, 1985).

For example, though men and women in science, technology, engineering, and math (STEM) fields had similar career aspirations and priorities as graduate students, a follow up study ten years later revealed marked differences. Women held less prestigious positions than their male counterparts, and several women had left their careers to become homemakers. The

researchers found that at some point between the original study and the follow up study, women had shifted their priorities to reflect a higher commitment to family and community, especially those who had become mothers. For example, women reported having a flexible work schedule as an important factor in their career decisions, while men did not (Ferriman et al., 2009).

This study is particularly notable because both genders expressed high career focus and motivation initially, and it provides evidence that career focused men and women have the same priorities and expectations early in their careers (Ferriman et al., 2009). Though it is unclear what caused the eventual change in women's priorities, however, the Dual Impact Model (Abele, 2000) and the Model of Achievement Related Choices (Eccles, 1987) could explain this shift by taking into account social expectations women encounter once they become mothers, which are often incompatible with a demanding career. Men would not need to reevaluate their priorities because fatherhood and career are not considered competing constructs in our culture (Eccles, 2009). Other longitudinal studies have also found that women reduce their work hours once they have children, and this has a negative effect on their career trajectories in terms of salary as well as status (Abele & Spurk, 2011; Buddeberg-Fischer et al., 2010; Evers & Sieverding, 2013).

While women's careers are impacted negatively by parenthood, men's career success is independent from, or augmented by parenthood (Abele & Spurk, 2011; Buddeberg-Fischer et al., 2010; Evers & Sieverding, 2013). In two large surveys conducted by an economist, 49% of executive women ages 41-55 earning more than \$100,000 per year did not have children, compared to only 19% of their male counterparts. In fact, the more successful a man was, the more likely he was to have a spouse and children (Hewlett, 2002). She also found that while 43% of women with children have taken voluntary time periods off of work (off ramps), only 24% of men have taken one. Women cited taking care of children or of other family members as the

most common reason for taking an off ramp (44%). However, men took off ramps to switch careers, obtain additional training or start a new business, and only 12% mentioned caring for a child or family member as a reason for leaving their workplace. Additionally, a disturbing 38% of highly educated women reported that they had deliberately chosen positions for which they were under qualified to fulfill family responsibilities (Hewlett & Luce, 2005).

Once women leave the workforce, the probability of them returning to a full time position is lower than that of men, and while 93% of highly qualified women who are not working would like to return to work, only 74% of them actually do. Of those who return to work, only 40% resume full time professional careers, and many take part time jobs. Even when women return to work after a short period of time, their salary is affected (Hewlett & Luce, 2005). Economists have estimated that every child produces a “penalty” of 6%-7% in a mother’s earnings, and that regardless of education, experience, or marital status, mothers earn less than women without children (Budig & England, 2001; Waldfogel, 1998).

Given the immense influence that compromising for partner and children can have on women’s career development, it is imperative to assess the willingness of young women, who do not yet have a partner or children, to compromise their future careers for future family responsibilities. Research suggests that values related to motherhood and career affect the plans of college students well before they have children. For example, college aged men and women expressed a belief that working mothers should assume the primary caretaker role for their children when they were not at work (Riggs, 2005). Schroeder et al. (1992) found that female college students expected childcare responsibilities to disrupt their future careers. Adolescent women also express higher concerns than adolescent males about future romantic relationships, which may affect their career plans (Looker & Magee, 2000).

## **Chore Distribution Expectations**

Research in married couples has found consistently that women assume primary responsibility for more household and childcare tasks than men, and spend more time on family-related chores (Abele & Spurk, 2011; Hewlett, 2002; Lachance-Grzela & Bouchard, 2011; U. S. Bureau of Labor Statistics, 2008). For example, in 2008, 89% of American married mothers reported participating in daily household chores, compared to only 64% of married fathers. Similarly, 71% of married mothers reported partaking in daily childcare, in contrast to 54% of married fathers (U. S. Bureau of Labor Statistics, 2008).

Surprisingly, women continue assuming these responsibilities even in couples in which both partners work full time, and when the woman earns a higher salary than her husband (Hewlett, 2002). In a large survey conducted in 2001, high achieving men and women were asked who takes primary responsibility in their household for various chores related to housework and childcare, such as preparing meals and taking time off work when a child is sick. While between 3% and 9% of men assumed primary responsibility for the chores, the percentage of women assuming primary responsibility was much higher - 45% to 61%. The results indicated that women overwhelmingly assumed primary responsibility for the chores, even when they worked longer hours and earned a higher salary than their husbands (Hewlett, 2002).

Hewlett (2002) also found that 37% of married, high achieving women between the ages of 28 and 40 felt like their husband created more household work than he ultimately contributed. When the same question was posed to older married, high achieving women (ages 41 to 55), the percentage who reported feeling as if their husband created more work than he contributed grew to 43% (Hewlett, 2002). This finding is in line with other studies that have shown that chore division in cohabitating couples becomes more uneven over time, with women taking

responsibility for more and more chores as the years go by, even if chore division was egalitarian earlier in the marriage (Grunow, Schulz, & Blossfeld, 2012; Miller & Sassler, 2010). In a large, longitudinal study spanning 14 years, researchers found that chore distribution in German married couples displayed a similar pattern of change. Egalitarian chore distribution gave way to unequal chore participation, relying on traditional gender role expectations. Men's participation in household labor decreased over time, while women's participation increased, regardless of whether or not the woman worked longer hours, or earned a higher salary than her husband (Grunow et al., 2012).

Young people and young couples tend to endorse gender equality and egalitarianism within marriages (Askari et al., 2010; Ferber & Young, 1997; van Hoof, 2011). However, an analysis of interviews conducted with 30 couples in 2010 indicated that although most couples divided chores in an egalitarian fashion when they started living together, the chore distribution became more traditional over time. The shift was not discussed within the couples and no explicit changes to arrangements were made, yet the women gradually preformed more household and childcare chores (Miller & Sassler, 2010). Even when both members of the couple supported gender equality, most women still preformed more household chores than their partners (van Hoof, 2011). The unequal division of labor is justified by both women and men through gendered rationales such as women being more competent at housework and having higher standards (van Hoof, 2011).

The trend of unequal chore distribution despite endorsement of egalitarian gender role expectations is prevalent even among unmarried college aged men and women who do not have children. It has been found that undergraduate men expect to participate in less housework, while women expect to participate in more housework, than they considered fair (Ferber & Young,

1997; Askari et al. (2010) found that undergraduate women showed expectations to participate in more chores than their future partners, and to participate in more chores than they ideally wanted to. In another study, in which college aged women were instructed to imagine different versions of their future selves, they expected to earn less, and perform more household chores, than their future male partners, even when anticipating to work full time (Fetterolf & Eagley, 2011).

### **Summary**

Women expect their career to be impacted negatively once they have a partner and children, and this is supported by a large body of research. Women assume more responsibility for household and childcare related tasks than their partners, and are more likely to leave the workforce. Furthermore, organizations are structured in ways that make it difficult to manage work and family, and employees often find themselves forced to choose between career and family (Hewlett, 2002; Hewlett & Luce, 2005). The literature covered in the previous sections clearly showed that more often than not, women are forfeiting success in the career domain to be present for their partner and family. This negatively impacts women's career trajectories and contributes to inequality between women and men in the workforce, resulting in the overrepresentation of women in low pay, low prestige occupations. Gender role orientation, gender role expectations, and self-concept have been shown to impact women's career and family-related decision-making. However, gender-related constructs are socially sensitive, and therefore susceptible to response biases. The current study examined the degree to which implicit self-concept explained additional variance beyond explicit measures of gender role orientation and gender role expectations in willingness to compromise career for future partner and children, and chore division expectations.

### **Purposes of the Current Study**

**Purpose 1.** The first purpose was to create a new IAT that measures self-concept in relation to career and family, and examine the degree of congruence between the IAT and explicit measures of self-concept. Also of interest were the relations among the IAT and relative importance of career and family, gender role orientation, and gender role expectations.

**Purpose 2.** The second purpose was to examine the degree to which implicit self-concept explained additional variance beyond explicit measures of gender role orientation and gender role expectations in the prediction of willingness to compromise career for future family and chore distribution expectations.

## **Research Questions and Hypotheses**

**Research question 1.** How congruent were the implicit (IAT) and explicit (the relative importance of family and career) measures of self-concept?

**Research question 2.** What were the relationships among implicit self-concept in regard to family and career and gender role orientation and gender role expectations, as operationalized in this study?

**Hypothesis 1.** Participants' gender role orientation, gender role expectations, and implicit self-concept in regard to career and family would contribute unique and shared variance in the prediction of willingness to compromise career for future partner.

**Hypothesis 1a.** Gender role orientation would contribute unique variance to the prediction of willingness to compromise career for future partner. There would be a negative correlation between instrumentality and willingness to compromise career for future partner, such that high levels of instrumental traits would be associated with low levels of willingness to compromise career for future partner.

**Hypothesis 1b.** Gender role expectations would contribute unique variance to the prediction of willingness to compromise career for future partner. There would be a negative correlation, such that high levels of egalitarianism would be associated with low levels of willingness to compromise career for future partner.

**Hypothesis 1c.** Implicit self-concept in regard to career and family would contribute unique variance above and beyond gender role orientation and gender role expectations to the prediction of willingness to compromise career for future partner. There would be a negative correlation between implicit self-concept associated with career and willingness to compromise

career for future partner, such that implicit self-concept associated with career would be associated with low levels of willingness to compromise career for future partner.

**Hypothesis 2.** Participants' gender role orientation, gender role expectations, and implicit self-concept in regard to career and family would contribute unique and shared variance in the prediction of willingness to compromise career for future children.

**Hypothesis 2a.** Gender role orientation would contribute unique variance to the prediction of willingness to compromise career for future children. There would be a negative correlation between instrumentality and willingness to compromise career for future children, such that high levels of instrumental traits would be associated with low levels of willingness to compromise career for future children.

**Hypothesis 2b.** Gender role expectations would contribute unique variance to the prediction of willingness to compromise career for future children. There would be a negative correlation, such that high levels of egalitarianism would be associated with low levels of willingness to compromise career for future children.

**Hypothesis 2c.** Implicit self-concept in regard to career and family would contribute unique variance above and beyond gender role orientation and gender role expectations to the prediction of willingness to compromise career for future children. There would be a negative correlation between implicit self-concept associated with career and willingness to compromise career for future children, such that implicit self-concept associated with career would be associated with low levels of willingness to compromise career for future children.

**Hypothesis 3.** Participants' gender role orientation, gender role expectations, and implicit self-concept in regard to career and family would contribute unique and shared variance in the prediction of ideal chore division expectations.

**Hypothesis 3a.** Participants would show egalitarian ideal chore division expectations.

**Hypothesis 3b.** Gender role orientation would contribute unique variance to the prediction of ideal chore division expectations. There would be a positive correlation between instrumentality and ideal chore division expectations, such that high levels of instrumental traits would be associated with high ideal chore division expectations (e.g., egalitarian division).

**Hypothesis 3c.** Gender role expectations would contribute unique variance to the prediction of ideal chore division expectations. There would be a positive correlation, such that high levels of egalitarianism would be associated with high ideal chore division expectations (e.g., egalitarian division).

**Hypothesis 3d.** Implicit self-concept in regards to career and family would contribute unique variance above and beyond gender role orientation and gender role expectations to the prediction of ideal chore division expectations. There would be a positive correlation between implicit self-concept associated with career and ideal chore division expectations, such that implicit self-concept associated with career would be associated with high ideal chore division expectations (e.g., egalitarian division).

**Hypothesis 4.** Participants' gender role orientation, gender role expectations, and implicit self-concept in regards to career and family would contribute unique and shared variance in the prediction of expected chore division expectations.

**Hypothesis 4a.** Levels of expected chore division expectations would be lower than levels of ideal chore division expectations.

**Hypothesis 4b.** Gender role orientation would contribute unique variance to the prediction of expected chore division expectations. There would be a positive correlation between instrumentality and expected chore division expectations, such that high levels of

instrumental traits would be associated with high expected chore division expectations (e.g., egalitarian division).

**Hypothesis 4c.** Gender role expectations would contribute unique variance to the prediction of expected chore division expectations. There would be a positive correlation, such that high levels of egalitarianism would be associated with high expected chore division expectations (e.g., egalitarian division).

**Hypothesis 4d.** Implicit self-concept in regards to career and family would contribute unique variance above and beyond gender role orientation and gender role expectations to the prediction of expected chore division expectations. There would be a positive correlation between implicit self-concept associated with career and expected chore division expectations, such that implicit self-concept associated with career would be associated with high expected chore division expectations (e.g., egalitarian division).

## CHAPTER III

### Method

#### Design

The study was a correlational field study.

#### Participants

Demographic characteristics of the sample ( $N = 86$ ) are reported in Table 1. The average age of the participants was 19.30 ( $SD = 1.20$ ). Approximately 34% of participants were first year students at the University of Maryland, 29% were sophomores, 19% were juniors, and 19% were seniors. Information regarding race was collected from 85 participants, among them 55% of the sample identified as White, 11% identified as Asian/Asian American, 21% identified as African American, 5% identified as Biracial/Multiracial, 7% identified as Hispanic/Latina, and 1% identified as “Other”. All participants identified their sexual orientation as straight, did not have children, and were not cohabitating with a partner.

Two thirds of participants were single (approximately 66%), and the rest were in a relationship, not cohabitating with a partner. The vast majority of single participants planned on being married or in a committed relationship in the future (approximately 98%), and approximately 92% of all participants planned to have children one day. Sixty-six participants reported their GPA ( $M = 3.37$ ,  $SD = .38$ ), the rest were unsure or too early in their college career to have a GPA. The participants were pursuing a variety of undergraduate majors (see Table 1), with the most frequently reported being Psychology (55.8%), Biology (12.7%), Family Science (6.9%), and Hearing and Speech (6.9%). Approximately 20% of participants planned to finish their education after earning a bachelor’s degree, while 80% planned to pursue graduate study (36% Master’s degree, 17.4% Ph.D., 19.8% M.D., 4.7% J.D., and 2.3% other graduate degree).

When asked about future career plans, 74.4% of participants reported that they planned to work full time outside of the home, 2.3% wanted to work full time from home, and 22.1% planned to work part time outside of the home. As for their future partner, 94.2% of participants expected him to work full time outside of the home, 2.3% expected him to work full time from home, and 3.5% expected him to work part time outside of the home. It is interesting to note that none of the participants expressed a desire to be homemakers, or for their future partners to be homemakers.

In terms of mother's occupational status, approximately 47% of the participants' mothers worked full time outside of the home, 2% worked full time in the home, 23% worked part time outside of the home, 4% worked part time from home, 21% were homemakers, and 4% were unemployed. In terms of father's occupational status, approximately 87% of the participants' fathers worked full time outside of the home, 7% worked full time in the home, 1% worked part time outside of the home, 2% worked part time from home, and 2% were unemployed. No participants reported having fathers who were homemakers.

## **Procedure**

Participants from a variety of majors were recruited utilizing four recruitment strategies. First, the PSYC100 research participant pool was used to invite students to participate in the study in exchange for course credit. They signed up online and were asked to go to the lab to complete the study. Second, instructors of advanced level psychology courses were contacted to distribute the study announcement by email and in person, and allow their students to receive course credit for participation in the study. Third, there was a focus on recruiting participants from diverse majors including areas of science, technology, engineering, and math. Personal contacts, student groups and organizations, faculty, and departments were contacted by email, by

phone, or in person. They were asked to distribute the study announcement to students who met criteria for study participation by email or in person. The fourth recruitment strategy was to use personal contacts to recruit from a wider pool.

Personal contacts were contacted by email, by phone, or in person, and were asked to invite eligible participants they may know to participate in the study. In the second, third, and fourth recruitment strategies, a list of interested students was compiled by the course instructors or personal contacts, and sent to the researcher. The researcher or a research assistant contacted the students and gave them more information and times to come to the lab. The announcement also included the researcher and research assistant's contact information so that interested students were able to contact them directly, receive information and set meeting times. Participants who did not receive course credit for participation were offered the opportunity to win one of three \$15 gift cards to Amazon.com as an incentive for participation.

Participants completed the measures in a small room on a desktop computer. After providing informed consent, the participants completed the IAT assessing self-concept in relation to career and family. The IAT was completed before the self-report measures to avoid priming effects. The participants then completed the explicit measures regarding relative importance of career and family, gender role orientation, and gender role expectations, and outcome measures of willingness to compromise for career and family and chore division expectations in randomized order on the same computer used for the IAT. The participants were debriefed before leaving.

## **Measures**

**Gender role orientation.** The Bem Sex-Role Inventory (BSRI; Bem, 1974) was administered to assess gender role orientation, the inside perspective in the Dual Impact Model

(Abele, 2000; See Appendix A) Participants rated 60 items, 20 instrumental, or stereotypically masculine, traits (e.g., assertive, competitive), 20 expressive, or stereotypically feminine, traits (e.g., sympathetic, warm), and 20 neutral items (e.g., helpful, happy) as they relate to themselves. The items were scored on a 7-point Likert scale ranging from 1 (*never or almost never true*) to 7 (*almost always true*). Items for each subscale were summed and then divided by 20 to obtain a subscale score. In the current study, instrumental traits were used as a predictor variable.

Bem (1974) showed that the BSRI demonstrated high internal consistency (Masculinity  $\alpha = .86$ ; Femininity  $\alpha = .82$ ) and test-retest reliability (Masculinity  $r = .90$ ; Femininity  $r = .90$ ). More recent studies with college aged participants also have yielded high internal consistency ratings (Masculinity  $\alpha = .85-.95$ ; Femininity  $\alpha = .79-.92$ ; Holt & Ellis, 1998; Guastello & Guastello, 2003). Although questions have been raised regarding the validity of the gendered traits used in the BSRI given social changes in perceptions of gender over the years, studies have shown that college students' perceptions of gender roles have remained stable (Holt & Ellis, 1998; Street, Kimmel, & Kromrey, 1995), so that expressive and instrumental traits continue to be associated with femininity and masculinity, respectively.

**Gender role expectations.** To measure gender role expectations, the outside perspective in the Dual Impact Model (Abele, 2000), participants completed the Traditional Egalitarian Sex Role Ideology Scale (TESR; Larsen & Long, 1988; See Appendix B). The scale consists of 20 items that measure attitudes towards gender-role equality. Participants rated their agreement with a series of statements on a 5-point Likert-type scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items were summed to obtain a total score, with high scores indicating support of egalitarian views and non-traditional gender-role expectations. Sample items include: “having

a job is just as important for a wife as it is for her husband” and “women should be more concerned with clothing and appearance than men”.

Scores on the TESR have been shown to be reliable and valid in sample of college students (Bosson, Taylor, & Prewitt Freilino, 2006; Forry, Leslie, & Letiecq, 2007; Katz Wise et al., 2010; Larsen & Long, 1988; Livingston & Judge, 2008). Researchers examining internal consistency in different samples found a split half coefficient of .91 and Cronbach’s alphas ranging from .84 to .90 (Bosson et al., 2006; Forry et al., 2007; Larsen & Long, 1988). Scores on the TESR have provided support for concurrent validity through correlations with other measures of gender role traditionalism ( $r = .79$ ), and have been found to correlate with measures of authoritarianism ( $r = .36$ ), conservatism ( $r = .47$ ), and attitudes towards divorce ( $r = .42$ ) in college students. Furthermore, TESR scores fit in models relating to variables such as parenting status and work-family conflict in samples of married couples (Katz Wise et al., 2010; Larsen & Long, 1988; Livingston & Judge, 2008).

**Implicit self-concept.** Implicit self-concept with regard to parenting and career was measured using an Implicit Association Test (IAT) developed for this study. The test was created by combining two existing IATs, the gender-career stereotype IAT (Nosek et al., 2002) and the self-concept IAT (Greenwald & Farnham, 2000). In the current IAT, participants were asked to sort seven words related to career (e.g., professional, career, salary) and seven words related to parenting (e.g., parents, children, family) into *me* or *not-me* categories. The *me* and *not-me* categories were represented by five items each (*me* examples: me, I, my; *not-me* examples: them, they, their). For a complete list of words used in the IAT, see Appendix C. Response times to pairings of (me + career) and (me + family) were compared. Each pairing was considered a trial,

with each participant first completing practice trials, and then completing the experimental trials (also called critical trials).

The IAT was divided into five steps (see Figure 1). Steps 1, 2 and 4 included a 20 trial practice block; Steps 3 and 5 included a 40 trial critical block. The practice blocks were comprised of 20 trials of pairing “family” and “career” words into “me” and “not me” categories, and vice-versa, in different combinations. The practice blocks were intended to familiarize participants with the task and to alert them to category switching, to ensure that critical blocks were measuring reaction times reflecting ease of association, rather than task learning. The critical blocks were 40 trials of pairing the stimulus words with the combined categories (Step 3 [me + family] and [not me + career]; Step 5 [me + career] and [not me + family]).

All reaction times were recorded. The IAT effect is the differences in mean response times between the critical blocks in Steps 3 and 5 (or the differences between mean response times of sorting words into [me + career] and [me + family]), and is represented by a transformation to Cohen’s *D*, which was observed to be superior to the original scoring method (Greenwald & Farnham, 2000; Greenwald et al., 2003). The scores ranged from (-2) to (+2). An error penalty was built into the task so that errors made by participants were taken into account when analyzing scores. When a participant would make an incorrect pairing, a red X would appear on the screen until the correct pairing was made. Respondents were required to provide a correct response after every error, and response latencies were computed as latency until the correct response (Greenwald et al., 2003).

The participants’ response times were examined to assess the ease of association for each of the categories, determining the centrality of parenthood and career in their self-concept. A negative score indicated self-concept associated with parenthood, a positive score indicated self-

concept associated with career, and a score of 0 indicated equal identification with family and career.

**Relative importance of career versus family.** To measure self-concept with regard to career and family explicitly, a one item measure of relative importance of career and family was administered (Fassinger, 1990; Richardson, 1974; See Appendix D). Participants were asked to rate the relative importance of family pursuits and career pursuits by selecting one out of five possible choices, such as “Career pursuits are far more important than family pursuits”. The statements were scored from 1 to 5, with high scores indicating great assigned importance to career pursuits over family pursuits.

**Willingness to compromise career for future family.** Willingness to compromise career for future family was measured using the PLAN scale (Ganginis Del Pino et al., 2013; See Appendix E). The scale was created to measure the extent to which women consider their future partner and children when planning for their career. The scale consists of 24 items divided into two subscales, prioritizing and compromising for partner (12 items) and considering children (12 items). Responses are recorded on a 4-point Likert scale ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). Item scores were summed to obtain scores on sub-scales, and sub-scales were summed to obtain a total scale score. High scores on the scale indicate strong willingness to compromise career plans. Sample items include “when selecting a career, I will take a lesser paying job if it means I am able to prioritize my relationship” (prioritizing and compromising for partner subscale), and “having quality time for raising children will be the most important consideration in my career choice” (considering children subscale). The scale showed good model fit with a bifactor model, and scores were found to be reliable samples of undergraduate women, with alphas of .86 and .92 for the two subscales respectively. Convergent validity was

demonstrated through negative correlations of scores on the PLAN scale with scores of career orientation (Ganginis Del Pino et al., 2013).

**Chore division.** Ideal and expected chore division expectations were measured by a chore list created for this study (see Appendix F). The principal investigator and her advisor, a licensed psychologist, reviewed the literature and compiled items from lists by Barnett and Baruch (1987), Askari et al. (2010), and Sweet and Bumpass (1996). New items were generated to address chores that were missing (e.g., monitor child's use of technology). A list of chores was created. Then, the principal investigator and her advisor then sorted all of the items independently to group items into shared themes and identify any redundancy in the items. Subsequently, the investigator and her advisor met, discussed the item sort, and eliminated duplicate items. Items also were deleted if they referred to restricted age ranges of children (e.g., diapering), and examples were added to existing items to clarify the intent of the item. The revised list of items was presented to a research team consisting of seven doctoral students and five undergraduate research assistants who examined whether the items assessed all components of the construct if the items were clear and understandable. The measure was revised and presented to another psychologist and eight doctoral students in an assessment doctoral level course. Additional feedback was received and further modifications were made.

Participants were presented with 25 tasks related to child care (e.g., taking to doctor/dentist, supervising child's morning routine) and 23 tasks related to household duties (e.g., grocery shopping, paying bills). Participants rated the tasks on a 7-point, fully anchored, Likert type scale with responses ranging from 1 (*my spouse will perform the chore alone*) to 7 (*I will perform the chore alone*), with a mid-point (4) indicating egalitarian chore distribution, similar to scales used in previous research (Biernat & Wortman, 1991; Katz-Wise, Priess, &

Hyde, 2010). Participants rated the list twice, first indicating their ideal chore division, and then indicating the chore division that they actually expected to perform in their future relationship (Askari et. al., 2010).

To score the measure, responses were assigned values so that high scores indicated egalitarianism. The original score of 4, indicating equal chore division, was the highest possible new value and remained the value of 4. The original scores of 3 and 5 were assigned the value of 3, the original scores of 2 and 6 were assigned a value of 2, and the original scores of 1 and 7 were assigned the value of 1.

**Demographic measures.** Participants were given a demographic questionnaire which included questions about age, major, career choice, education degree plans, socioeconomic status, relationship status, involvement in student activities, and parental occupation information (see Appendix G).

### **Analysis**

A power analysis for 80% power to detect a medium effect size for four regression equations ( $\alpha_{\text{family wise}}=.05$ ) indicated the need for a sample size of 78. Although past IAT studies of self-concept and gender identification have shown large effect sizes (Greenwald & Farnham, 2000), a medium effect size was assumed because the IAT specific to this study had never been used.

**Analysis of Research Questions 1 and 2.** The relationships between implicit self-concept and relative importance of family versus career, gender role orientation, and gender role expectation were assessed using Pearson  $r$  correlations.

**Analysis of Hypotheses 1a-c, 2a-c, 3a-d, and 4b-d.** Four hierarchical regression analyses were computed to test the unique and shared variance of the predictor variables in the

outcome variables. The equations were constructed by entering gender role orientation (instrumentality score) and gender role expectations (TESR score) simultaneously in the first step, and adding implicit self-concept (IAT score) in the second step. The regressions were run four times, once for each of the outcomes: willingness to compromise career for future partner, willingness to compromise career for future children, ideal chore division, and expected chore division.

**Analysis of Hypotheses 4a.** A t-test was conducted to assess the difference between ideal and expected levels of chore division expectations.

## CHAPTER IV

### Results

#### Preliminary Analyses

The study was completed by 91 undergraduate women at the University of Maryland. Five participants' demographic information indicated that they did not meet exclusion criteria (two participants reported a sexual orientation other than straight and three participants had children) and their data were deleted from the study, leaving a sample of 86.

Missing values were analyzed using missing data analysis techniques in SPSS 21.0. The results suggested that there was no pattern for missing data, thus data imputation was conducted for 86 participants using an EM algorithm, which makes minimal assumptions about the data.

Prior to conducting the regression analyses, an evaluation of the assumptions for multiple regression analyses was conducted according to the recommendations in Gelman and Hill (2007). The assumption of validity was met, and the assumptions of additivity and linearity, and independence of errors were assessed in SPSS 21.0 using scatter plots. Assumptions were met, allowing the data to be analyzed using regression.

IAT scores were calculated according to the procedure described in Greenwald, Nosek, and Banaji (2003). Each score was entered into an excel sheet programmed to calculate a transformation on Cohen's D. The scores were double checked by research assistants. IAT building, administering, and scoring was approved and aided by a fifth year cognitive psychology doctoral student in the Neuroscience and Cognitive Sciences program at the University of Maryland, with extensive experience using reaction time measures in behavioral research, including development of IATs to assess racial bias and fan support of college basketball teams. He also teaches PSYC489J, an advanced undergraduate statistics class.

## **Demographics and Descriptive Statistics**

Demographics for the sample can be found in Table 1. Descriptive statistics for all measures can be found in Table 2.

## **Correlational Analyses**

To address the two research questions, Pearson correlations were calculated among variables of interest (see Table 2). Significant relations were reported at the  $p < .05$  level. No relationships were found between participants' IAT scores and their scores on the explicit measure of relative importance regarding family and career, gender role orientation, or gender role expectations. A small negative relationship was found between explicit relative importance of family and career and ideal chore division expectations ( $r = -.22$ ), and positive relationships were found between explicit relative importance regarding family and career and willingness to compromise career for future partner ( $r = .38$ ) and children ( $r = .50$ ). In other words, the extent to which participants indicated that family was more important to them than career was associated with less likelihood of ideal egalitarian chore division expectations, and higher levels of willingness to compromise career for partner and children.

## **Regression Analyses**

Four hierarchical multiple regression analyses were conducted to assess the contributions of the predictor variables in predicting each of the four dependent variables (willingness to compromise career for future partner, willingness to compromise career for future children, ideal chore division, and expected chore division).

Collectively, instrumentality, gender role expectations, and IAT score accounted for 3% of the variance in the prediction of willingness to compromise career for future partner (see Table 3), and 6% of the variance in the prediction of willingness to compromise career for future

children (see Table 4). When all variables were entered in the regression equations, none of the variables explained a significant amount of variance regarding willingness to compromise career for future partner or children.

Collectively, instrumentality, gender role expectations, and IAT score significantly accounted for 20% of the variance in the prediction of ideal chore division, with instrumentality and gender role expectations explaining 19% of the variance in ideal chore division (see Table 5). Gender role expectations was the only predictor that accounted for unique variance. More egalitarian gender role expectations related to more egalitarian ideal future chore division expectations.

Collectively, instrumentality, gender role expectations, and IAT score accounted for 7% of the variance in the prediction of expected chore division (see Table 6). None of the variables explained variance in expected chore division.

### **T-Test Analysis**

A t-test was conducted to assess the difference between ideal and expected levels of chore division expectations. Results indicated that participants expected less egalitarian household and childcare chore division ( $M= 3.07$ ,  $SD= .29$ ) than they ideally wanted ( $M= 3.57$ ,  $SD= .56$ ,  $t(85)= 10.57$ ,  $p< .01$ ).

### **Post-hoc Analyses**

We became interested in how expressivity related to the variables of interest in this study, thus post-hoc analyses were conducted. Pearson correlations were calculated between expressivity and the variables of interest (see Table 2), and significant relations were reported at the  $p<.05$  level. Among the participants, expressivity had a positive relationship with expected chore division ( $r = .22$ ) and a positive relationship with willingness to compromise career for

children ( $r = .29$ ), indicating that women who score higher on expressivity expected more egalitarian chore division, and were more willing to compromise career for children than were women who scores lower on expressivity.

Two hierarchical regression equations were run to test whether expressivity, along with gender role orientation (instrumentality score) gender role expectations (TESR score), and implicit self-concept (IAT score), predicted expected chore division and willingness to compromise for children. Collectively, instrumentality, expressivity, gender role expectations, and IAT score accounted for 15% of the variance in the prediction of willingness to compromise career for future children (see Table 7). Instrumentality, expressivity, gender role expectations, and IAT score accounted for 11% of the variance in the prediction of expected chore division (see Table 8). In both cases, expressivity was the only unique predictor so that women high in expressivity were more willing to compromise their career for future children, but also more likely to expect egalitarian chore division, than women with low levels of expressivity.

## Chapter V

### Discussion

The purpose of the current study was to examine the relationship between implicit self-concept and career- and family-related planning in undergraduate women. Specifically, it assessed the degree to which implicit self-concept related to willingness to compromise career for future children or partner and future chore division expectations, beyond explicit measures of gender role orientation (instrumentality) and gender role expectations. The study was grounded in two theories of women's career development (Abele, 2000; Eccles, 1987), which stressed the importance of internalized constructions of gender and gender role expectations in the career decision making process. No relationship was found between implicit self-concept and explicit gender role orientation (instrumentality) or gender role expectations, and implicit self-concept was not related to anticipated family or career related outcomes. In terms of anticipated chore division, undergraduate women expected to participate in more household and childcare chores than they ideally wanted. Women with more egalitarian gender role expectations ideally wanted more egalitarian chore division with their future partners than women with less egalitarian gender role expectations. In a post-hoc analysis, differences also were found in women with high versus low levels of expressivity. Women with high levels of expressivity were more likely to expect egalitarian chore division, and were more willing to sacrifice their future career for their children than women with low levels of expressivity.

The women in the sample of the current study were mostly White, early in their undergraduate career, and single. Almost all of the participants planned to be in a committed relationship and have children in the future, and all of them planned to work in some capacity. The participants had a high average GPA, and most of them planned to continue their education

after finishing their undergraduate degree. The sample also held egalitarian gender role expectations, and implicitly identified strongly with family over career. For these reasons, the current findings might be limited in their generalizability.

In the study, it was hypothesized that participants' gender role orientation, gender role expectations, and implicit self-concept in regard to career and family would contribute to the prediction of willingness to compromise career for future partner and children, and ideal and expected future chore division. It was also hypothesized that implicit self-concept would predict these outcomes above and beyond the other variables. The hypotheses were not supported, the only exception being that egalitarian gender role expectations were positively related to ideal egalitarian chore division expectations. The lack of findings in the study is surprising, given that the Dual Impact Model (Abele, 2000) links gender role orientation and expectations with career and family related outcomes, and past research has found support for this claim (Abele & Spurk, 2011; Erchull et al., 2010; Evers & Sieverding, 2013; Gray & O'Brien, 2007). Furthermore, self-concept is a key factor in Eccles's career development model on which the study is based (Eccles, 1987).

One reason for the lack of findings in the current study could be due to the small variance in IAT responses. As suggested by previous studies, motherhood and femininity are intrinsically linked, and young women start planning for their role as mothers even before they are married or have children (Eccles, 1994; Looker & Magee, 2000; Schroeder, 1992). Implicit attitudes research also has shown that undergraduate women associate themselves with motherhood over a student role (Devos et al., 2007). In line with the literature, the undergraduate women in the current study implicitly associated themselves strongly with motherhood over career. Other than two women who showed a slight preference for career over family, every participant associated

herself with family from a slight to a strong degree. Although the preference for family was expected, the strength of the association with motherhood was surprising. The results might point to range restriction in IAT responses since nearly half of the possible range was not represented. Restricted range is problematic because it makes it difficult to find relationships between the restricted variable and other variables.

Another possible explanation for the lack of findings is the use of self-report measures of future behavior, rather than actual behavioral measures. Implicit attitudes have been shown to relate to behavioral measures, and less so to self-report measures (Greenwald et al., 2009). This is because self-report measures undergo the same type of processing as explicit attitudes, while behavior or physiological responses is influenced by implicit cognitions and automatic attitudes. The purpose of this study was to examine the relationship between implicit self-concept and career and family decision making in undergraduate women who did not yet have a career or a family, and so self-report of future behavior was deemed the best way to measure the variables of interest.

The sample in the current study was diverse in terms of race and ethnicity, and was representative of the student population at the university in which the study was conducted (Forbes, n.d.). However, most of the participants had a relatively high GPA, and despite efforts to recruit women from a variety of majors, roughly half of the participants majored in psychology. Furthermore, none of the women who participated in the study planned to be homemakers, and all but two women showed implicit self-concept tied to family rather than career. Additionally, the sample size of 86 participants might have been too small to detect small effect sizes. A power analysis conducted prior to data collection indicated the need for sample size of 78, but this was assuming a medium effect size. It is possible that the combination of the

restricted range of responses on the IAT as well as the use of self-report measures made it more difficult to find an effect, and that a larger sample was needed.

Another limitation was that although the IAT was carefully designed based on two validated and widely used IATs, it nonetheless had not been used in previous research. The new IAT assessing self-concept in regard to family and career was needed to measure the construct in the current study, however the responses did not relate to other measures in the hypothesized directions, and so further research is needed to determine whether the IAT is assessing the construct of interest. It could be that the words used in the “career” category of the IAT were too specific to a certain career setting, within a business track. Words such as “corporate”, “management”, or “business” might not accurately the future careers that the women in the current sample were considering, because the most common majors of the participants were psychology and biology. The words also represent an upper-class, elite workforce, which not all the women in the sample might be aspiring to join. It is also possible that the women in the current sample were too young to associate themselves with career words like “professional” and “management”, which resulted in IAT scores more associated with family.

Additionally, the explicit measure of Relative Importance of Career and Family (Richardson, 1974) was selected because it most directly measured the construct of interest. However, the measure was constructed in 1974 and might be outdated, and it also consisted of only one item, which could negatively impact the validity of responses. Additionally, the mid-point of the measure could indicate either high importance, or low importance, placed on both career and family. In the future, explicit importance should be measured on separate “career” and “family” scales so that high-high and low-low responses could be differentiated.

It was hypothesized that expected chore division expectations would be less egalitarian than ideal chore division expectations. The hypothesis was confirmed, and women in the study expected to participate in more household and childcare chores than they ideally wanted. This was consistent with the literature (Askari et al., 2010) that showed that young women understand they will bear most of the responsibility for household and childcare chores, even if they desire egalitarian partnerships. Research on married couples shows that over time women assume more and more responsibility for household labor while their partners do less, and this is the case even when both partners endorse egalitarian marriages and gender equality (Hewlett, 2002). It seems that young women may understand this reality even before they get married or have families, and they expect unequal chore division in their future. Their expectations do not align with their ideals.

Additionally, egalitarian gender role expectations emerged as a unique predictor for ideal egalitarian chore division expectations. Women who had more egalitarian gender role expectations also desired more egalitarian chore division than women with traditional gender role expectations. This is consistent with the literature and with Askari et al.'s (2010) findings on ideal chore division expectations. However, it is interesting that in the current study, egalitarian gender role expectations did not contribute to the prediction of actual expected chore division. In other words, women who had more egalitarian gender role expectations did not actually expect to do fewer chores than their traditional counterparts, despite more egalitarian ideal chore division desires. This might be because the previous study used a measure of feminist ideology to assess egalitarian gender role expectations, which could have been tapping into a different construct of feminist beliefs and not of gender role egalitarianism. Another possible explanation could be that although egalitarian gender role beliefs seem to be impacting the young women on

an ideological level, these do not seem to translate into actual behavioral expectations. Ideal chore division and gender role expectations both tap into beliefs and ideals about gender, but expected chore division is a predictive measure of future behavior and is closer to measuring actual behavior. Behavior is often not associated with endorsed beliefs (Cin et al., 2007; Franck et al., 2007), and it is worth noting that implicit self-concept would theoretically have a greater impact on expected rather than ideal chore division. The sample in the current study strongly implicitly associated themselves with family over career, therefore it is not surprising that their expectations of chore division are less egalitarian than their ideals. Although implicit self-concept was not a significant predictor of chore division expectations in this study, perhaps it would emerge as one if a larger sample was tested.

Gender role orientation in the current study was measured in terms of instrumental traits (Bem, 1981) because they were found to predict career and family related outcomes in previous studies (Abele & Spurk, 2011; Evers & Sieverding, 2013; Gray & O'Brien, 2007). However in the current study instrumentality did not predict willingness to compromise career for family or partner, or chore division expectations. A possible explanation might be that though instrumentality links to the public work sphere for women, it does not relate in the same way to the private home sphere. Women historically take on more responsibility in the home and family spheres, and those behaviors might be tied to femininity and socialization into feminine roles, rather than instrumental traits. Therefore it might be that expressivity would be a better predictor of outcomes related to home and family, such as the outcomes examined in this study.

To understand how expressive traits related to the outcomes, post-hoc analyses were conducted. Results indicated that women who were higher in expressivity were more willing to sacrifice their career for future children (but not for future partner) than women who were low in

expressivity. This could be because women who see themselves as possessing many traits that are considered feminine have internalized more feminine ideals or expectations (Spence & Buckner, 2000). Motherhood is considered a key aspect of femininity, and often the constructs of motherhood and femininity are intertwined (Eccles, 2009). Willingness to compromise career for future children, for women high in expressivity, might be an expression of their internalization of ideals of motherhood into their identity. The fact that they did not show a similar tendency with willingness to compromise career for future partner might indicate that the role of “wife” is not as tied with femininity as the role of “mother” in young women.

The analysis also revealed that expressivity was a predictor of expected chore division expectations, but only when implicit self-concept was not included in the model. Women higher in expressivity had more egalitarian chore division expectations than women lower in expressivity. This is a surprising result because high levels of expressivity suggest internalization of traditional femininity, which would lead to more traditional, and less egalitarian, chore division expectations. However, once the IAT score was added to the prediction, expressivity no longer added variance to the outcome. This supports the previously suggested theory that implicit self-concept might have a greater impact on actual rather than ideal chore division expectations, and it might mediate the relationship between expressivity and expected chore division.

### **Recommendations for Practitioners**

One important implication of the current study is that young women seem to understand that their egalitarian expectations from their future partners will probably not be met. Egalitarian division of household labor has been shown to be a large factor in women’s career success, and women perform more chores than their partners, even when they work full time (Hewlett, 2002). Chore division is rarely addressed directly career counseling, but considering the implications

that chore division can have on women's career trajectories, it becomes clear that this issue should be addressed in counseling as early as possible. It is unclear to what degree undergraduate women are aware of the gap between their ideals and expectations, and so career counselors might first administer chore lists to start the conversation. Women should be encouraged to discuss their beliefs and ideals about egalitarianism, and then explore the mismatch between that and their expectations. Explicitly discussing and raising the issue to awareness would bring to light an often overlooked problem, and addressing it with young, undergraduate women who are still making career and family related decisions could lead to positive outcomes in both spheres. It could also encourage young women to keep these thoughts in mind when selecting a partner, and find someone who is likely to be compatible with their views on equality within relationships. This could create future home environments for women that will enable more flexibility in traditional labor division and gender role expectations, and have positive impacts on their careers. This type of intervention could be effective with young men as well, by raising their awareness to aspects of fairness in relationships they may not have previously considered and identifying ways in which their behaviors do not align with the values and ideals they express. Couples counseling could offer a setting in which young couples could explore these issues together, and discover and address differences in views and expectations of domestic labor division and egalitarianism in their partnership. With the help of a therapist, couples could talk about ways they feel their partnership is equal or unequal, and become aware of the gendered beliefs that might underlie these issues.

Another finding of the current study that could be helpful in therapy and career counseling is that young women internalize constructs of femininity and motherhood, which have the potential to impact future career decision making. Career counselors should encourage

young, undergraduate women to explore the meaning that gender and femininity have in their lives. It is important to address the ways that motherhood and femininity might be linked, and to explore the client's expectations of herself as a mother if she is planning to have children in the future. It is possible that undergraduate women have not yet directly thought about these issues, but the results of the current study and previous research show that career and family related decisions might be influenced even at this early stage (Fetterolf & Eagley, 2011). Group counseling could be an especially appropriate framework to encourage young women to explore their self-concept as women with future careers, partners, and children. A group setting would allow members to learn from each other while providing a safe environment for exploration.

### **Future Research Directions**

In the current study, implicit self-concept was not related to the outcomes measure, and future research should focus on validating the implicit self-concept measure to ensure that it is measuring the construct in a meaningful way. For example, based on vocational literature, men do not make career sacrifices for family to the same extent as women (Abele & Spurk, 2011; Buddeberg-Fischer et al., 2010). Testing the IAT with men could provide data on whether or not their implicit self-concept will be tied with career rather than family. The current study used a sample of college-aged American women who implicitly associated themselves strongly with motherhood over career. It would be interesting to see whether men also associate themselves more strongly with fatherhood than career at this point of their lives, or whether their implicit self-concept is tied with career over fatherhood. Implicit associations have been linked with behavioral outcomes (Greenwald et al., 2009) and non-conscious processes are a key component of career decision making (Kreishok et al., 2009). Therefore, difference between the genders on this facet of implicit self-concept could offer insight into occupational inequality between men

and women. Conversely, if men show the same pattern of implicit associations as women, it could suggest that more attention should be given to the socio-cultural constructions of motherhood and fatherhood, and their compatibility with career success (Eccles, 2009). Future studies should focus on similar samples of women and of men, so that gender would be the most salient difference between the groups.

The IAT also should be tested alongside behavioral outcomes, either concurrently or utilizing a longitudinal research design. This could be another avenue for establishing validity because implicit measures most strongly relate to behavioral outcomes (Greenwald et al., 2009). For example, future research might use a sample of working mothers, who are actually faced with work-family conflict, to see how implicit self-concept might relate to their career and family status. Another option is a longitudinal study that could examine whether implicit self-concept in relation to family and career predicts eventual career and family related decision making. Implicit self-concept could be measured in college-aged women, and a ten year follow up could provide information regarding behavioral outcomes. Longitudinal research could also be utilized to examine whether implicit self-concept is stable, or whether it changes over time.

Future implicit attitudes research with undergraduate women should also take into account the possible mismatch between words in the “career” category of the IAT, and the population of interest. The measure could be adapted to better fit the college student population by utilizing career words that are more easily relatable for a college student population (such as: job, paycheck, work, leadership). Longitudinal research with the adapted measure could be used with young women at different stages in their career planning, such as graduate students or students on internship. Another possibility is to use the current measure with a population of business majors, or women in specific business career tracks.

Male career development is often the norm to which women's career development is compared (Eccles, 1987), however it is important to note that perhaps there are different career development pathways for each gender. Future research should examine this possibility.

### **Conclusion**

This study examined young women's implicit self-concept along with gender and career-related variables. The results indicated that even though undergraduate women are interested in pursuing careers, their implicit self-concepts are strongly tied with family over career, and they expect to take on more household and childcare chores than they ideally want. This reflects a reality in which women are moving forward in the workplace, but are still expected to assume most of the responsibilities in the private sphere as a wives and mothers. To inspire change, interventions should be aimed at raising young women's awareness of inconsistencies between their ideals and expectations, and exploring their personal beliefs surrounding gender, parenting, and partnerships.

Table 1. *Demographic characteristics for total sample (N=86)*

<b>Variable</b>	<b>%</b>	<b>Variable</b>	<b>%</b>
Year in school		Mother's occupational status	
Freshman	33.7	Full time work (outside home)	46.5
Sophomore	29.1	Full time work (from home)	2.3
Junior	18.6	Part time work (outside home)	23.3
Senior or beyond	18.6	Part time work (from home)	3.5
Race		Homemaker	20.9
African American	20.9	Unemployed	3.5
Asian/Asian American	10.5	Father's occupational status	
American Indian	0	Full time work (outside home)	87.2
Biracial/Multiracial	4.7	Full time work (from home)	7.0
Hispanic/Latina	7.0	Part time work (outside home)	1.2
White	54.7	Part time work (from home)	2.3
Other	1.2	Unemployed	2.3
Relationship Status		Major	
Single (never married)	66.3	Accounting	1.1
In a relationship	33.7	Biology	12.7
Plan to be in a committed relationship (if single)	98.2	Business	3.4
Plan to have children	91.9	Criminology	4.6
Education plans		Communications	4.6
Bachelor's	19.8	Education	4.6
Master's	36.0	Engineering	2.3
Ph.D.	17.4	English	1.1
M.D.	19.8	Family Science	6.9
J.D.	4.7	Government & Politics	2.3
Other graduate degree	2.3	Hearing & Speech	6.9
Future career status		History	1.1
Full time work (outside home)	74.4	Kinesiology	1.1
Full time work (from home)	3.5	Mathematics	2.3
Part time work (outside home)	22.1	Nursing	1.1
Future partner career status		Nutrition	2.3
Full time work (outside home)	94.2	Pre-dental	2.3
Full time work (from home)	2.3	Psychology	55.8
Part time work (outside home)	3.5	Public Health	1.1
		Spanish	1.1
		Theater	1.1

  

<b>Variable</b>	<b>Mean</b>	<b>SD</b>	<b>Actual Range</b>	<b>Possible Range</b>
Age	19.30	1.29	18-24	18-24
GPA	3.37	.38	1.8-4.0	0.0-4.0

Table 2. *Correlation table for total sample (N=86)*

Variable	1	2	3	4	5	6	7	8	9
1.IAT	1								
2. Relative importance	-.05	1							
3. TESR	.01	-.08	1						
4. Instrumentality	.00	-.02	.01	1					
5. Expressivity	.05	.20	.02	.06	1				
6. Ideal chores	.08	-.22*	.44**	.01	.01	1			
7. Expected chores	.16	-.11	.20	.09	.22*	.64**	1		
8. PLAN partner	-.10	.38*	-.14	-.00	.12	-.16	-.04	1	
9. PLAN children	.14	.50**	-.16	-.12	.29**	-.13	.03	.42**	1
M	-.65	3.29	85.39	4.64	5.41	3.57	3.07	30.68	30.13
SD	.30	.66	8.73	.87	.81	.29	.56	5.34	5.60
Actual range	-1.23-0.62	2-5	50-99	1.7-6.4	3.1-7	2.52-4	1.54-4	15-44	12-42
Possible range	-2- 2	1-5	20-100	1-7	1-7	1-4	1-4	12-48	12-48
Cronbach's Alpha	NA	NA	.84	.85	.86	.91	.96	.86	.86

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR); Willingness to compromise career (PLAN)

Table 3. *Summary of hierarchical regression analysis of participants' instrumentality, gender role expectations, and IAT score as predictors of willingness to compromise career for future partner (N=86).*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					83	.14	.02	.02	.87	.87
Instrumentality	-.01	.66	-.00	-.02						
TESR	-.08	.06	-.14	-1.31						
Step 2					82	.17	.03	.01	.84	.80
Instrumentality	-.01	.66	-.00	-.01						
TESR	-.08	.06	-.14	-1.30						
IAT	-1.68	1.88	-.09	-.89						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

Table 4. *Summary of hierarchical regression analysis of participants' instrumentality, gender role expectations, and IAT score as predictors of willingness to compromise career for future children (N=86).*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					83	.20	.04	.04	1.81	1.8
Instrumentality	-.75	.69	-.11	-1.08						
TESR	-.10	.06	-.16	-1.54						
Step 2					82	.25	.06	.02	1.82	1.8
Instrumentality	-.76	.68	-.11	-1.10						
TESR	-.10	.06	-.16	-1.57						
IAT	2.60	1.93	.14	-1.34						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

Table 5. *Summary of hierarchical regression analysis of participants' instrumentality, gender role expectations, and IAT score as predictors of ideal chore division (N=86).*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					83	.44	.19	.19	10.0**	10.0**
Instrumentality	.00	.03	.00	.05						
TESR	.01	.00	.44	4.47**						
Step 2					82	.44	.20	.00	6.8**	.59
Instrumentality	.00	.03	.00	.047						
TESR	.01	.00	.43	4.44**						
IAT	.07	.09	.07	.77						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

Table 6. *Summary of hierarchical regression analysis of participants' instrumentality, gender role expectations, and IAT score as predictors of expected chore division (N=86).*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					83	.22	.05	.05	2.22	2.22
Instrumentality	.05	.06	.09	.83						
TESR	.01	.00	.20	1.90						
Step 2					82	.27	.07	.02	2.3	2.39
Instrumentality	.05	.06	.08	.83						
TESR	.01	.00	.20	1.90						
IAT	.29	.19	.16	1.54						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

Table 7. Summary of post-hoc hierarchical regression analysis of participants' instrumentality, expressivity, gender role expectations, and IAT score as predictors of willingness to compromise career for future children ( $N=86$ ).

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					82	.37	.13	.13	4.39**	4.39**
Instrumentality	-.89	.66	-.13	-1.34						
Expressivity	2.15	.70	.31	3.03**						
TESR	-.11	.06	-.17	-1.69						
Step 2					81	.39	.15	.01	3.70**	1.55
Instrumentality	-.89	.66	-.13	-1.35						
Expressivity	2.10	.70	.30	2.97**						
TESR	-.11	.06	-.17	-1.72						
IAT	2.31	1.85	.12	1.24						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

Table 8. *Summary of post-hoc hierarchical regression analysis of participants' instrumentality, expressivity, gender role expectations, and IAT score as predictors of expected chore division (N=86).*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>T</i>	<i>df</i>	<i>R</i>	<i>R</i> <sup>2</sup>	$\Delta R^2$	<i>F</i>	$\Delta F$
Step1					82	.30	.09	.09	2.86*	2.86*
Instrumentality	.04	.06	.07	.71						
Expressivity	.14	.07	.21	2.00*						
TESR	.01	.00	.20	1.89						
Step 2					81	.34	.11	.02	2.72*	2.14
Instrumentality	.04	.06	.07	.71						
Expressivity	.14	.07	.20	1.93						
TESR	.01	.00	.19	1.88						
IAT	.27	.19	.15	1.4						

Note: \*  $p < .05$ , \*\*  $p < .01$ ; Traditional Egalitarian Sex Role Ideology (TESR)

<b>Block</b> (number of repetitions)	<b>1</b> (20)	<b>2</b> (20)	<b>3</b> (40)	<b>4</b> (20)	<b>5</b> (40)
<b>Task description</b>	Practice <i>Initial family-career discrimination</i>	Practice <i>Self-other discrimination</i>	Critical <i>Initial combined task</i>	Practice <i>Reversed family-career discrimination</i>	Critical <i>Reversed combined task</i>
<b>Task Instructions</b>	← FAMILY CAREER →	← ME NOT-ME →	← ME ← FAMILY NOT-ME → CAREER →	FAMILY → ← CAREER	FAMILY → ← ME ← CAREER NOT-ME →
<b>Sample stimuli</b>	← PARENTS PROFESSIONAL → MANAGEMENT → ← FAMILY ← WEDDING OFFICE → ← RELATIVES	← I ← ME THEM → ← MINE OTHER → ← SELF THEY →	← MINE SALARY → CAREER → ← WEDDING THEIRS → ← PARENTS ← MY	FAMILY → ← BUSINESS ← OFFICE RELATIVES → ← CAREER HOME → WEDDING →	← CAREER THEIRS → ← SELF ← SALARY WEDDING → FAMILY → THEY →

*Figure 1.* Schematic description and illustration of the Implicit Association Test (IAT) measuring self-concept regarding family and career. The arrows in the third row represent the right or left response (participants were instructed to press the E or I keys on a QWERTY keyboard) assigned to each category in each block, the arrows in the fourth row represent correct right or left responses to stimuli. Blocks 1, 2, and 4 were practice blocks intended to ensure participants correctly discriminated the stimuli, blocks 3 and 5 were critical blocks combining the self-other and career-family stimuli.

Appendix A

Bem Sex Role Inventory (Bem, 1981)

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## Appendix B

## Traditional Egalitarian Sex Role Ideology Scale (Larsen &amp; Long, 1988)

Please provide your responses to the items below on a scale from 1 to 5, with (1) Strongly disagree. (2) Disagree. (3) Neither agree nor disagree. (4) Agree. (5) Strongly Agree. There are no right or wrong answers. If you are unsure how to respond to an item, select the response closest to the way you feel.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Strongly disagree</b>	<b>Disagree</b>	<b>Neither agree nor disagree</b>	<b>Agree</b>	<b>Strongly agree</b>

- \_\_\_ 1. It is just as important to educate daughters as it is to educate sons.
- \_\_\_ 2. Women should be more concerned with clothing and appearance than men.
- \_\_\_ 3. Women should have as much sexual freedom as men.
- \_\_\_ 4. The man should be more responsible for the economic support of the family than the woman.
- \_\_\_ 5. The belief that women cannot make as good supervisors or executives as men is a myth.
- \_\_\_ 6. The word "obey" should be removed from wedding vows.
- \_\_\_ 7. Ultimately a woman should submit to her husband's decision.
- \_\_\_ 8. Some equality in marriage is good, but by and large the husband ought to have the main say-so in family matters.
- \_\_\_ 9. Having a job is just as important for a wife as it is for her husband.
- \_\_\_ 10. In groups that have both male and female members, it is more appropriate that leadership positions be held by males.
- \_\_\_ 11. I would not allow my son to play with dolls.

- \_\_\_12. Having a challenging job or career is as important as being a wife and mother.
- \_\_\_13. Men make better leaders.
- \_\_\_14. Almost any woman is better off in her home than in a job or profession.
- \_\_\_15. A woman's place is in the home.
- \_\_\_16. The role of teaching in the elementary schools belongs to women.
- \_\_\_17. The changing of diapers is the responsibility of both parents.
- \_\_\_18. Men who cry have weak character.
- \_\_\_19. A man who has chosen to stay at home and be a house-husband is not less masculine.
- \_\_\_20. As head of the household, the father should have the final authority over the children.

## Appendix C

### List of words used in the Self-Concept Career Family IAT

*Me:* I, Me, Mine, My, Self

*Not-me:* They, Them, Their, Theirs, Other

*Family:* Home, Parents, Children, Family, Marriage, Wedding, Relatives

*Career:* Management, Professional, Corporation, Salary, Office, Business, Career

## Appendix D

### Relative Importance of Career and Family (Richardson, 1974)

Please check the statement that is closest to your own feeling regarding the relative importance of career and family:

- Career pursuits are far more important than family pursuits.
- Career pursuits are more important than family pursuits but family is important too.
- Career and family pursuits are equally important.
- Family pursuits are more important than career pursuits but career is important too.
- Family pursuits are far more important than career pursuits.

## Appendix E

## The PLAN Scale (Ganginis Del Pino et al., 2013)

The following are a number of statements that reflect the extent to which you think about your future family when deciding on a career. Rate the degree to which you agree or disagree with each statement using the following scale.

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>
<b>Strongly Disagree</b>	<b>Disagree</b>	<b>Agree</b>	<b>Strongly Agree</b>

1. 1 2 3 4 Any career that I will select must enable me to be home when my children come home from school.
2. 1 2 3 4 I will have a career with flexible hours so that I can be home for the children I plan to have.
3. 1 2 3 4 Having quality time for raising children will be the most important consideration in my career choice.
4. 1 2 3 4 I will select a career that can be put on hold when my children are young.
5. 1 2 3 4 When considering a future career, I will look for a job that will allow me the flexibility of being able to stay at home when my children are sick or out of school.
6. 1 2 3 4 When planning for my career, I will think about how much energy I will have for my children.
7. 1 2 3 4 Future parenting responsibilities will be an important factor in making my career plans.
8. 1 2 3 4 My future career will allow me to have time off in the summer so I can be with my children.
9. 1 2 3 4 I will select a career that allows me to slow down after I have children.
10. 1 2 3 4 I will not plan my career around future parenting responsibilities.
11. 1 2 3 4 I will find a career where I do not have to work full-time after I have children.
12. 1 2 3 4 When choosing a career, I will think about whether the work load will hinder my ability to care for my children.
13. 1 2 3 4 Any relationship that I am in will need to realize that my career plans come first.
14. 1 2 3 4 I will make my career plans independently of what my partner might need.
15. 1 2 3 4 I will give up some of my career goals for my relationship.

16. 1 2 3 4 I will never change my career plans for a relationship.
17. 1 2 3 4 I will take a job that I find less satisfying if it means having more time for my partner.
18. 1 2 3 4 When selecting a career, I will take a lesser paying job if it means I am able to prioritize my relationship.
19. 1 2 3 4 Taking a less demanding job to have more energy for my partner will not be an option.
20. 1 2 3 4 My career choice will be based on my goals, not on my ability to balance work and love.
21. 1 2 3 4 The wishes of my partner will not figure into my career plans.
22. 1 2 3 4 Having a fulfilling career will be very important to me, even at the expense of future responsibilities to my partner.
23. 1 2 3 4 When selecting a career, I will consider the needs of my partner.
24. 1 2 3 4 Having a satisfying relationship is not as important as picking a career I love.

## Appendix F

## Chore list

Imagine that in the future you are married and have children. **Ideally**, how would you want to divide chores between you and your future partner?

1	2	3	4	5	6	7
<b>My spouse will perform the chore alone</b>	<b>My spouse will do much more than me</b>	<b>My spouse will do a little more than me</b>	<b>We will both contribute equally</b>	<b>I will do a little more than my spouse</b>	<b>I will do much more than my spouse</b>	<b>I will perform the chore alone</b>

Household chores

1.	1	2	3	4	5	6	7	Cleaning the house (e.g., sweeping, vacuuming, cleaning bathrooms)
2.	1	2	3	4	5	6	7	Yard work (e.g., lawn upkeep, snow removal)
3.	1	2	3	4	5	6	7	Planning meals
4.	1	2	3	4	5	6	7	Grocery shopping
5.	1	2	3	4	5	6	7	Preparing meals/cooking
6.	1	2	3	4	5	6	7	Meal cleanup/washing dishes
7.	1	2	3	4	5	6	7	General home repairs and maintenance in the home
8.	1	2	3	4	5	6	7	Car repairs and car maintenance
9.	1	2	3	4	5	6	7	Paying bills
10.	1	2	3	4	5	6	7	Taking out trash/recycling
11.	1	2	3	4	5	6	7	Organizing social activities
12.	1	2	3	4	5	6	7	Keeping in touch with family and friends
13.	1	2	3	4	5	6	7	Laundry (e.g., washing, folding, ironing)
14.	1	2	3	4	5	6	7	Maintaining family calendar/schedule
15.	1	2	3	4	5	6	7	Responsibility for family traditions (e.g., holidays, religious and cultural practices)
16.	1	2	3	4	5	6	7	Buying gifts for family (e.g., for birthdays, holidays)
17.	1	2	3	4	5	6	7	General errands (e.g., bank, dry cleaning)

18.	1	2	3	4	5	6	7	Purchasing items for home (e.g., cookware, bedding, soap, cleaning supplies)
19.	1	2	3	4	5	6	7	Organizing the house (e.g., straightening up, putting things in place)
20.	1	2	3	4	5	6	7	Managing finances (e.g., budget, investments, insurance)
21.	1	2	3	4	5	6	7	Decorating the home (including decorating for holidays)
22.	1	2	3	4	5	6	7	Planning vacations (including packing)
23.	1	2	3	4	5	6	7	Arranging for and interacting with service providers (e.g., waiting for and negotiating with repairmen)

### Childcare chores

1.	1	2	3	4	5	6	7	Helping child with homework
2.	1	2	3	4	5	6	7	Responding to child in the middle of the night (e.g., difficulty sleeping, nightmare, crying)
3.	1	2	3	4	5	6	7	Supervising child's morning routine
4.	1	2	3	4	5	6	7	Spending time with child at bedtime (e.g., getting ready for bed, reading a story)
5.	1	2	3	4	5	6	7	Staying home or making arrangements for childcare when child is sick
6.	1	2	3	4	5	6	7	Arranging for childcare or babysitting when needed
7.	1	2	3	4	5	6	7	Taking to and from bus stop/school
8.	1	2	3	4	5	6	7	Taking to doctor/dentist
9.	1	2	3	4	5	6	7	Supervising child's personal hygiene (including bathing young children)
10.	1	2	3	4	5	6	7	Spending time outside of the house with child (e.g., playground, park)
11.	1	2	3	4	5	6	7	Disciplining child (e.g., setting appropriate limits, giving consequences, correcting behavior)
12.	1	2	3	4	5	6	7	Attending teacher conferences/communicating with teachers
13.	1	2	3	4	5	6	7	Taking child to or from lessons/activities
14.	1	2	3	4	5	6	7	Buying gifts for birthday parties/social events
15.	1	2	3	4	5	6	7	Preparing lunches for children to bring to school
16.	1	2	3	4	5	6	7	Monitoring child's technology use (e.g., cell phone, internet, tv)

17.	1	2	3	4	5	6	7	Being involved in school activities/organizations (e.g., PTA, field trips, volunteering)
18.	1	2	3	4	5	6	7	Monitoring child's progress in school
19.	1	2	3	4	5	6	7	Attending child's activities/recitals/games
20.	1	2	3	4	5	6	7	Helping with developmental steps (e.g., potty training, driving)
21.	1	2	3	4	5	6	7	Taking care of a sick child
22.	1	2	3	4	5	6	7	Playdates (including arranging, driving, supervising)
23.	1	2	3	4	5	6	7	Shopping for child (clothes, school supplies, toys)
24.	1	2	3	4	5	6	7	Assigning and monitoring chores for child
25.	1	2	3	4	5	6	7	Spending quality time with child in the home

Imagine that in the future you are married and have children. How do you **actually expect** that chores will be divided between you and your future partner?

1	2	3	4	5	6	7
<b>My spouse will perform the chore alone</b>	<b>My spouse will do much more than me</b>	<b>My spouse will do a little more than me</b>	<b>We will both contribute equally</b>	<b>I will do a little more than my spouse</b>	<b>I will do much more than my spouse</b>	<b>I will perform the chore alone</b>

### Household chores

1.	1	2	3	4	5	6	7	Cleaning the house (e.g., sweeping, vacuuming, cleaning bathrooms)
2.	1	2	3	4	5	6	7	Yard work (e.g., lawn upkeep, snow removal)
3.	1	2	3	4	5	6	7	Planning meals
4.	1	2	3	4	5	6	7	Grocery shopping
5.	1	2	3	4	5	6	7	Preparing meals/cooking
6.	1	2	3	4	5	6	7	Meal cleanup/washing dishes
7.	1	2	3	4	5	6	7	General home repairs and maintenance in the home

8.	1	2	3	4	5	6	7	Car repairs and car maintenance
9.	1	2	3	4	5	6	7	Paying bills
10.	1	2	3	4	5	6	7	Taking out trash/recycling
11.	1	2	3	4	5	6	7	Organizing social activities
12.	1	2	3	4	5	6	7	Keeping in touch with family and friends
13.	1	2	3	4	5	6	7	Laundry (e.g., washing, folding, ironing)
14.	1	2	3	4	5	6	7	Maintaining family calendar/schedule
15.	1	2	3	4	5	6	7	Responsibility for family traditions (e.g., holidays, religious and cultural practices)
16.	1	2	3	4	5	6	7	Buying gifts for family (e.g., for birthdays, holidays)
17.	1	2	3	4	5	6	7	General errands (e.g., bank, dry cleaning)
18.	1	2	3	4	5	6	7	Purchasing items for home (e.g., cookware, bedding, soap, cleaning supplies)
19.	1	2	3	4	5	6	7	Organizing the house (e.g., straightening up, putting things in place)
20.	1	2	3	4	5	6	7	Managing finances (e.g., budget, investments, insurance)
21.	1	2	3	4	5	6	7	Decorating the home (including decorating for holidays)
22.	1	2	3	4	5	6	7	Planning vacations (including packing)
23.	1	2	3	4	5	6	7	Arranging for and interacting with service providers (e.g., waiting for and negotiating with repairmen)

### Childcare chores

1.	1	2	3	4	5	6	7	Helping child with homework
2.	1	2	3	4	5	6	7	Responding to child in the middle of the night (e.g., difficulty sleeping, nightmare, crying)
3.	1	2	3	4	5	6	7	Supervising child's morning routine
4.	1	2	3	4	5	6	7	Spending time with child at bedtime (e.g., getting ready for bed, reading a story)
5.	1	2	3	4	5	6	7	Staying home or making arrangements for childcare when child is sick
6.	1	2	3	4	5	6	7	Arranging for childcare or babysitting when needed
7.	1	2	3	4	5	6	7	Taking to and from bus stop/school

8.	1	2	3	4	5	6	7	Taking to doctor/dentist
9.	1	2	3	4	5	6	7	Supervising child's personal hygiene (including bathing young children)
10.	1	2	3	4	5	6	7	Spending time outside of the house with child (e.g., playground, park)
11.	1	2	3	4	5	6	7	Disciplining child (e.g., setting appropriate limits, giving consequences, correcting behavior)
12.	1	2	3	4	5	6	7	Attending teacher conferences/communicating with teachers
13.	1	2	3	4	5	6	7	Taking child to or from lessons/activities
14.	1	2	3	4	5	6	7	Buying gifts for birthday parties/social events
15.	1	2	3	4	5	6	7	Preparing lunches for children to bring to school
16.	1	2	3	4	5	6	7	Monitoring child's technology use (e.g., cell phone, internet, tv)
17.	1	2	3	4	5	6	7	Being involved in school activities/organizations (e.g., PTA, field trips, volunteering)
18.	1	2	3	4	5	6	7	Monitoring child's progress in school
19.	1	2	3	4	5	6	7	Attending child's activities/recitals/games
20.	1	2	3	4	5	6	7	Helping with developmental steps (e.g., potty training, driving)
21.	1	2	3	4	5	6	7	Taking care of a sick child
22.	1	2	3	4	5	6	7	Playdates (e.g., arranging, driving, supervising)
23.	1	2	3	4	5	6	7	Shopping for child (e.g., clothes, school supplies, toys)
24.	1	2	3	4	5	6	7	Assigning and monitoring chores for child
25.	1	2	3	4	5	6	7	Spending quality time with child in the home

## Appendix G

## Demographic Questionnaire:

Age: \_\_\_\_\_

**Gender:**

\_\_\_\_\_ Female

\_\_\_\_\_ Male

\_\_\_\_\_ Other

**Status in School:**

\_\_\_\_\_ First year

\_\_\_\_\_ Sophomore

\_\_\_\_\_ Junior

\_\_\_\_\_ Senior

**Relationship Status:**

\_\_\_\_\_ Single (never-married)

\_\_\_\_\_ Single (divorced)

\_\_\_\_\_ Single (widowed)

\_\_\_\_\_ In a relationship (not living with partner)

\_\_\_\_\_ In a relationship (living with partner)

\_\_\_\_\_ Married

\_\_\_\_\_ Married (separated)

**Race/Ethnicity:**

\_\_\_\_\_ African American

\_\_\_\_\_ Asian/Asian American

\_\_\_\_\_ American Indian

\_\_\_\_\_ Biracial/Multiracial

\_\_\_\_\_ Hispanic, Latina

\_\_\_\_\_ White, non-Hispanic

\_\_\_\_\_ Other (Please Specify)

**Sexual Identity:**

\_\_\_\_\_ Bisexual

\_\_\_\_\_ Gay/Lesbian

\_\_\_\_\_ Queer

\_\_\_\_\_ Straight

**If Single: Do you plan to get married/be in a committed relationship?**

\_\_\_\_\_ Yes      \_\_\_\_\_ No

**Do you plan on having children?**      \_\_\_\_\_ Yes      \_\_\_\_\_ No

**If you were to be married/in a committed relationship and have children, how do you foresee the occupational status of you and your partner:**

You:

\_\_\_\_\_ Full-time work (outside the home)

\_\_\_\_\_ Full time work (within the home)

\_\_\_\_\_ Part-time work (outside the home)

\_\_\_\_\_ Part-time work (within the home)

\_\_\_\_\_ Homemaker

\_\_\_\_\_ Unemployed

Your partner:

\_\_\_\_\_ Full-time work (outside the home)

\_\_\_\_\_ Full time work (within the home)

\_\_\_\_\_ Part-time work (outside the home)

\_\_\_\_\_ Part-time work (within the home)

\_\_\_\_\_ Homemaker

\_\_\_\_\_ Unemployed

**Have you chosen a major?** \_\_\_\_\_ Yes \_\_\_\_\_ No

If **YES**, what major have you chosen? \_\_\_\_\_

If **NO**, what majors are you considering?

1. \_\_\_\_\_

2. \_\_\_\_\_

**What is your overall GPA?** \_\_\_\_\_

**What are your educational plans?**

\_\_\_\_\_ Undergraduate degree

\_\_\_\_\_ M.S./M.A. degree

\_\_\_\_\_ Ph.D. degree

\_\_\_\_\_ Medical degree

\_\_\_\_\_ Law degree

\_\_\_\_\_ Other (please specify)

**What student activities are you involved in?**

\_\_\_\_\_ Athletics (please specify)

\_\_\_\_\_ Clubs (please specify)

\_\_\_\_\_ Fraternity or Sorority (please specify)

\_\_\_\_\_ Student organization (please specify)

\_\_\_\_\_ Other (please specify)

**What are the occupations of your parents?**

Mother: \_\_\_\_\_

Father: \_\_\_\_\_

**Please indicate the occupational status of your parents:**

Mother:

\_\_\_\_\_ Full-time work (outside the home)

\_\_\_\_\_ Full time work (within the home)

\_\_\_\_\_ Part-time work (outside the home)

\_\_\_\_\_ Part-time work (within the home)

\_\_\_\_\_ Homemaker

\_\_\_\_\_ Unemployed

Father:

\_\_\_\_\_ Full-time work (outside the home)

\_\_\_\_\_ Full time work (within the home)

\_\_\_\_\_ Part-time work (outside the home)

\_\_\_\_\_ Part-time work (within the home)

\_\_\_\_\_ Homemaker

\_\_\_\_\_ Unemployed

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