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# Family and Cultural Influence on Career Self-Efficacy: Comparisons Between International and Domestic University Students

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Family and Cultural Influence on Career Self-Efficacy: Comparisons Between International and  
Domestic University Students

by

Lisa Marie Gust

A THESIS

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## **Abstract**

The differences between international students and domestic students on career decision-making self-efficacy were investigated in regards to family and cultural influence. Participants included 77 undergraduate domestic and international students. Standardized assessments on career decision-making self-efficacy, family influence, and individualism-collectivism were completed. Participants indicated their current occupational pursuit, their family's career, and their perceptions of their family's career expectations. Bivariate correlations and ANOVAs revealed that there were significant differences between international students and domestic students on career decision-making self-efficacy, but no significant effects of family or cultural influence were found. Thematic analysis found that participants felt they had the freedom to choose their own career, though some expressed their family had specific career expectations for them. Limitations of the study, directions for future research, and implications for university career practitioners and academic policy-makers are discussed.

## **Acknowledgements**

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## **Dedication**

I would like to dedicate this thesis to my family, immediate and extended, for this would not have been possible without your support, encouragement, and genuine enthusiasm. I'm lucky to have so many people in my corner, and so many positive role models.

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## CHAPTER 1: CONTEXT OF THE STUDY

*“Your outlook upon life, your estimate of yourself, your estimate of your value are largely colored by your environment. Your whole career will be modified, shaped, molded by your surroundings, by the character of the people with whom you come in contact every day.”*

*— Orison Swett Marden*

This thesis begins with an overview of the current study. Chapter One includes sections on the context of the study, an introduction to the topic under examination, the guiding theoretical framework, and the research approach. Specifically, the concepts of family influence, cultural influence, and career decision-making self-efficacy will be introduced, and their significance to the current study highlighted. To conclude, a discussion of the significance of the study will highlight the importance of this research for academic institutions, the advancement of knowledge, and for career counsellors and career practitioners.

At some point in our lives, the majority of us have been asked the following question: “What do you want to be when you grow up?” and we often mention a role model or parent whose career path we would like to follow. Career development begins early, with many individuals starting to explore jobs and careers in adolescence and continuing into adulthood (Chhin, Bleeker, & Jacobs, 2008; Dietrich & Kracke, 2009; Hirschi, 2011; Whiston & Keller, 2004). Moreover, one of the strongest factors in career choice and development for youth and young adults is parental influence (Bratcher, 1982; Chhin et al., 2008; Hou & Leung, 2011; Marjoribanks, 2002). As children, we gain much of our career knowledge and attitudes from our parents or parental figures through observation, and the career behaviours that are modelled at home (Whiston & Keller, 2004). Previous research has found that parents are a generally positive influence in their children’s career development, acting as motivators and facilitators (Otto, 2000). Parents often have expectations for the career or career area their children will

pursue and parents' career expectations for their children have been found to significantly influence the child's occupational choice, whereby children are more likely to enter into the career their parents expect them to pursue (Chhin et al., 2008; Whiston & Keller, 2004).

The family is often the first exposure individuals have to the world of work by observing parents' attitudes and work experiences (Porfeli, Wang, & Hartung, 2008; Whiston & Keller, 2004). Strongly tied to parental and family influence is the cultural environment that children are raised in, whereby parents' expectations are influenced by the cultural norms of their society (Hou & Leung, 2011; Singaravelu, White, & Bringaze, 2005). This cultural influence has also been found to have a strong influence on career choice in university students, and international students in particular (Arthur & Flynn, 2011; Singaravelu et al., 2005). However, there have been contrasting results in research that has examined the congruence between the occupation the child wishes to enter and the occupation the parent or parents expect the child to pursue.

For example, Hou and Leung (2011) compared the career aspirations of Chinese high school students to their parents' career expectations for their children in regards to occupational sex-type, prestige, and occupational field. The overall finding was that students' aspirations were generally congruent with parental expectations, though there were some discrepancies (Hou & Leung, 2011). Female students were found to aspire more often to artistic occupations, which was not always congruent with parental expectations (Hou & Leung, 2011). Moreover, parental expectations trended towards more prestigious careers compared to students' aspirations (Hou & Leung, 2011). Additionally, there were different expectations based on sex-type, whereby parents expected their sons to enter more science-based careers (Investigative on the Holland career model) and their daughters to enter more administrative/business careers (Enterprising on the Holland career model; Hou & Leung, 2011). The results of this study show that family influence

and cultural influence are closely linked, particularly in regards to career choice, which is the central focus of this study.

### **Rationale for the Study**

With the strong influences of family of origin and culture clearly documented in the career literature, it becomes crucial to be aware of these influences in university students. Young adults are increasingly enrolling in universities as a part of their career path, and this includes both local students and students who leave their home country to attend university in another country (Citizenship and Immigration Canada [CIC], 2013a; Jachowicz, 2007). In 2012, Canada welcomed over 100,000 new international students from countries all across the globe – a 60% increase in international student enrollment since 2004 (CIC, 2013a). In 2013, over 304,000 international students of all ages studied in Canada (CIC, 2014). Despite the growing international student population, there has been little research dedicated to the career development of international students and their career decision-making; the majority of international student research literature has focused on acculturation and adjustment to the host culture. These topics, while important, do not paint a full picture of the career decision-making that international students face and the challenges that can arise (Arthur & Flynn, 2011; Shen & Herr, 2004).

Research focusing on the career development of international students finds that many international students struggle with barriers, and their needs are not being adequately addressed by career services offered by the university (Arthur & Flynn, 2011; Jachowicz, 2007; Shen & Herr, 2004; Singaravelu et al., 2005). There is a pervasive belief that international students are ‘temporary residents’ who study for a relatively brief time before returning to their country of origin; Citizenship and Immigration Canada lists international students as temporary residents in their statistical reports (2013b). However, there are a growing number of international students

who choose to stay in the host country after completing their studies instead of returning home, which has a significant impact on their career (Arthur & Flynn, 2011; Jachowicz, 2007; Shen & Herr, 2004; Singaravelu et al., 2005). Therefore, it is important to be aware of and better understand the social influence on these students as they work and study in the Canadian context.

### **Purpose of the Study**

As found in previous research, family (Whiston & Keller, 2004) and culture (Hou & Leung, 2011) have a strong impact on career decision-making. Given these findings on culture, family, and career choice, the current research study set out to examine how family influence and career decision-making self-efficacy differ between undergraduate international and domestic students. Specifically, do international students experience a stronger family influence than domestic students? How does career decision-making self-efficacy differ between international and domestic students? What role does gender play in regards to family and cultural influence? The findings of this study will provide a better understanding of the social influences experienced by university students, how these influences can impact their career decision-making self-efficacy, and their subsequent career choice. If students are strongly influenced to pursue a career they would not have chosen for themselves due to family or cultural expectations, it can have a negative impact on academic achievement, and lead to greater rates of academic attrition (Hunt, Boyd, Gast, Mitchell, & Wilson, 2012).

### **Personal Connection to the Study**

Career development is a relatively new interest for me. Although I have been interested in psychology and counselling since secondary school, it was not until I finished my bachelor's degree that I became more interested in how and why people make career decisions. One of the courses I took through distance education had a strong occupational development focus, which showed me a side of psychology that I had not researched before. The more I read on the topic,

the more interested and passionate about it I became. In my undergraduate degree, I had many friends who started in one major and switched to another part way through, while others stayed in one major throughout their degree. There were some friends who knew what they wanted for a career, and others who felt their career had been chosen for them by their parents or other family members. I also had friends who “stuck to their guns”, despite what their parents said. I began to wonder more and more about the influence that family had on career and career decidedness, and which family members were considered influential. Was it mainly parents? What role did siblings, aunts, uncles, cousins, and grandparents play in career influence?

This curiosity carried over into the small research project I completed as part of a course in my Master’s program, where I interviewed two of my friends and classmates about their career path and how their parents played a role in their decision-making process. My friends are international students, both from cultures different than the Western context that I grew up in. In reading their stories and their experiences, I discovered that parents have a strong influence, but that the individual ultimately chose whether or not to follow their parents’ expectations. Themes that were commonly mentioned included parental expectations their child would enter a different career, participants following their own career path that matched with personal interests and goals, and finding support outside of their parents (extended family, teachers, etc.). There was also a theme of what participants said their culture of origin valued or saw as a “good” career.

The results of this project encouraged me to research further, beyond parents, to include the broader family context, as it has been my experience that the definition of family is different not only across cultures, but within them. I remember a conversation I had with my grandmother about what constituted the term ‘immediate family’ after a major family event where some family members were excluded from the term ‘immediate family’; for one group immediate family was

parents and siblings only, but for another group it included grandparents as well. This example showed the differences within my own family and culture.

I think about my own career path, and the positive influence of not only my parents, but my grandparents, my cousins, and my aunts and uncles. My parents encouraged me to pursue post-secondary education, and then graduate school when I decided I wanted to become a psychologist. They drove two hours to see me present my undergraduate thesis work, and have been there to counsel me through many of my academic-related crises. My closest cousin studied abroad at the Massachusetts Institution of Technology for engineering, and her hard work and dedication has always inspired me. Her mother (my aunt and godmother) has been one of my biggest supporters and has shown a great interest in my career path, even reading my undergraduate thesis. If it had not been for these supportive family members encouraging my career development, I'm not sure I would have reached the achievements I have earned to date.

### **Definition of Terms**

In order to aid in the understanding of the research topic, this section will outline the most important terminology used in the following chapters. These definitions are intended to help readers navigate the topic with ease and clarity, providing differentiation and exclusionary criteria when necessary. Definitions will be provided for the following terms: (a) international students, (b) domestic students, (c) Canadian-born, (d) foreign-born, (e) career decision-making self-efficacy, (f) family influence, (g) cultural influence (including individualism and collectivism), (h) career aspiration, and (i), family career expectation.

**International students.** For the purpose of this study, international students are individuals who study abroad in a country that is different than their country of origin or citizenship; using this definition, students who originate from the United States would also be



considered international students (Jachowicz, 2007). Students who participated in the study self-identified as international or domestic students.

**Domestic students.** In contrast, domestic students are individuals who study in their country of origin or citizenship. This would include students who are Canadian-born as well as students who are first generation immigrants and hold Canadian citizenship.

**Canadian-born.** For this study, Canadian-born are individuals whose country of birth is Canada, and who have lived in Canada for their entire life. To differentiate, this would not include first generation immigrant individuals, who would instead fit into the next category.

**Foreign-born.** For this study, foreign-born are individuals whose country of birth is outside of Canada, and who have lived in another country. To differentiate, this category would include international students and domestic students who are first generation immigrants.

**Career decision-making self-efficacy.** As defined by Lent, Brown, and Hackett (1994), career decision-making self-efficacy is a dynamic set of beliefs in one's abilities to execute required courses of action to attain a desired result, and determine one's chosen activities and environments. Career decision-making self-efficacy can be high, whereby the individual has confidence in their ability to make career choices and complete vocational tasks successfully, or low, whereby the individual has little to no confidence in their abilities (Lent et al., 1994).

**Family influence.** For the purpose of this study, family influence is defined as the variety of ways one's family of origin can shape or guide decision-making, and includes dimensions such as guidance, support, shared values, and expectations (Fouad, Cotter, Fitzpatrick, Kanatamneni, & Bemfeld, 2010). This influence can be positive, or negative. With the evolution of the family structure, this definition of family influence is inclusive of all family structures and constellations, including parents, siblings, step-family, grandparents, and other extended family.

**Cultural influence.** For this study, cultural influence is defined as the conscious or unconscious influences an individual's cultural background and values have on career decision-making. This study will focus on cultural orientations of individualism and collectivism, which have been used frequently to describe cultures (McCarthy, 2005). Cultural influence will be further differentiated into two main concepts:

*Individualism.* Part of cultural influence, individualism is defined as an individual's values aligning with more individual-centred beliefs and behaviours (e.g. independence, competition, direct communication, uniqueness, etc.; Williams, 2003; Shulruf et al., 2011).

*Collectivism.* Part of cultural influence, collectivism is defined as an individual's values aligning with more group- or collective-centred beliefs and behaviours (e.g. belonging, advice-seeking, harmony, etc.; Williams, 2003; Shulruf et al., 2011). It is important to note that for this study these definitions are not absolute; individuals can align with each of the cultural orientations, whereby they ascribe to and behave in manners that match with one, the other, or a combination of both (Shulruf et al, 2011).

**Career aspiration.** Often used in career development literature, career aspiration is commonly defined as a career an individual would like to pursue, or their 'ideal' career (Hou & Leung, 2011; Whiston & Keller, 2004). This is different from career expectation, which is what career the individual expects they will realistically enter into (Hou & Leung, 2011; Whiston & Keller, 2004). In this study, career aspiration will be determined through participants' self-report.

**Family career expectation.** Also used frequently in career development literature, family career expectation is defined as the career or occupation an individual's family expects him or her to pursue (Hou & Leung, 2011). In this study, family career expectation will be determined by the participant's self-reported perceptions of their family's career expectations.

## **Theoretical Framework**

This study primarily uses a Social Cognitive Career Theory framework to guide its development. Social Cognitive Career Theory (Lent et al., 1994) is based on Bandura's theory of self-efficacy as a determinant of behaviour. As seen in the Definition of Terms section, self-efficacy refers to the beliefs individuals hold regarding their ability to complete tasks successfully (Bandura, 1977). If individuals believe that they are competent and able to complete a task well, they are said to have high self-efficacy for that task, and are consequently more likely to approach and engage in that particular behaviour in the future (Bandura, 1977). For tasks that individuals have low self-efficacy for, they are more likely to avoid engaging in that task, as their belief in their ability to successfully complete it is low (Bandura, 1977). Applied to career theory, this model predicts why some individuals avoid particular tasks or careers despite their ability – their self-efficacy beliefs are low, leading to avoidance (Lent et al., 1994). Social Cognitive Career Theory also takes social and contextual factors into account in career choice and decision-making, including gender, social support, and cultural background (Lent et al., 1994), making it an ideal fit for this study.

## **Research Approach**

As the current study sought to examine potential differences in family and cultural influence on career self-efficacy between two independent groups, a quantitative, quasi-experimental design was used. Specifically, a correlation analysis and analysis of variance (ANOVA) were conducted to examine the differences between international students and domestic students on standardized measures. The research was quasi-experimental, as the groups of students were naturally occurring and could not be randomly assigned (Ray, 2006).

An element of qualitative analysis is also present in the form of a thematic analysis, as students were asked to comment on their career aspirations, their family's career paths, and their

perception of their family's career expectations for them. Thematic analysis was chosen for its flexibility and utility in analysing and summarizing any amount of textual information into meaningful themes (Joffe, 2012).

### **Significance of the Study**

The findings from this study can help inform career development services and programs for undergraduates to facilitate more students' career decision-making and career exploration. Career decidedness and self-awareness are strong predictors of job satisfaction, and increased job satisfaction leads to greater work productivity; in simpler terms, workers who know who they are as individuals and what career they would like to pursue are happier and more productive employees (Chen, Chang, & Yeh, 2004; Earl & Bright, 2007). An understanding of these influences will further inform university career practitioners in their work with struggling students by helping them navigate the tension between their career aspirations and their family's expectations, leading to greater student retention and degree completion (Hunt et al., 2012).

This research will also help challenge the stereotypes surrounding international students and students from non-dominant ethnic groups around pursuing their family's career expectations rather than their own career goals. In addition, knowledge of family influences has particular implications for international students, who experience unique cultural pressures not faced by domestic students and who are currently underserved by university career counselling services (Arthur & Flynn, 2011; Jachowicz, 2007). As many are exposed to new options and lifestyles, international students may feel the need to adjust or change their educational or occupational choices (Arthur & Flynn, 2011; Shen & Herr, 2004). Given the current under-utilization of career counselling by international students, the results of this study will add important knowledge around how career services might tailor their services to better meet the needs of international students who choose to study in Canada.

## **Summary**

This research aims to further the understanding of family and cultural influence on career decision-making, and what differences might exist between undergraduate international students and domestic students. In this chapter, an overview of the topic of study and the context within the field of career development was provided. The rationale, purpose, significance, approach, and theoretical framework of the research were outlined to give the reader an overview of the study. The quantitative nature of the study allowed for the relationships between concepts to be analyzed, and the thematic analysis provided further understanding of the meaning behind students' career choices. This research contributes much needed knowledge around career influences, which can inform university career services' programs and practices, particularly in regards to the unique needs of international students (Jachowicz, 2007).

## **CHAPTER 2: LITERATURE REVIEW**

The discussion in Chapter One provided an overview of the social context, purpose, significance, and rationale of the current study. To better understand the experiences of both domestic students and international students, and the influencing factors on their career decision-making self-efficacy, it is vital to understand the supporting theoretical frameworks that relate to these factors. To accomplish this, Chapter Two will contain a review of the literature, including both classic and current perspectives on career development. Theories from different schools of thought will be presented, and the strengths and limitations of each theory will also be noted. Particular focus will be given to Social Cognitive Career Theory, as it is the guiding framework for this study. Following the review of career development theories, an outline of the influences on career development in university students will be introduced, with attention paid to international student career development. Of particular note, the barriers international students face in their career choice will be presented. A summary of the more recent research findings in regards to family, culture, and career choice will then be outlined, with focus given to interactions between these factors. In particular, the interplay between family influence and cultural influence will be examined in-depth. To conclude the chapter, the discussion will focus on the influences of career decision-making self-efficacy and its subsequent impact on job satisfaction and vocational outcomes for university students and graduates.

To understand the impact of family and cultural influences on career choice and career decision-making self-efficacy, and the differences that exist between international students and domestic students, it is important to acknowledge the career development theories used in a Western, Canadian context. An understanding of these theories provides additional context and appreciation for the lived experiences of these students. Moreover, appreciation of these influences helps us to understand how and why students choose particular careers over others,

and what social influences are shaping those choices (Swanson & Fouad, 2010). This understanding is particularly important when considering career choices made by international students, as their social and cultural context may be different than the Western, Canadian context they study in. In addition, an understanding of family and cultural influences on career choice can help career practitioners and academic leaders better tailor university services to best suit international students' and domestic students' career development needs.

### **Career Development Theories**

What is a psychological theory? The most commonly accepted definition of a psychological theory is best conceptualized by Swanson and Fouad, who describe it as “a series of connected hypothetical statements designed to explain a particular behaviour or set of behaviours” (Swanson & Fouad, 2010, p. 4). Theories help researchers and counsellors conceptualize and understand complex human behaviour and allow predictions to be made about future behaviour (Swanson & Fouad, 2010). In the context of career development, theories explain individuals' vocational behaviour and can be used to intervene when problems arise (Swanson & Fouad, 2010). However, it is important to keep in mind that theories that are useful in one context may not be useful in others, and that theories omit, distort, or simplify complex processes out of necessity to fit the entire range of human behaviour into their concepts or tenets (Krumboltz, 1994).

Despite these cautions, without theoretical frameworks it would be a challenge to make sense of individuals' career development and vocational behaviours, and despite some overlaps between theories each has its own unique framework (Swanson & Fouad, 2010). Career development theories are typically conceptualized as being content-based, process-based, a combination of both, or constructivist (Patton & McMahon, 2014). These four types of career theories, plus a sociological perspective, are further discussed in the following sections to

showcase the predominant theory in the field and how career development is conceptualized. It is critical to have knowledge of these different theories and their strengths and weaknesses in order to better understand the career development of international students and domestic students. In addition, this section aims to showcase the history and evolution of career theory over time. The theories presented in this section illustrate the different categories of theories, as well as demonstrate how the concept of career development has shifted from content-based theories to constructivist and social constructivist theories.

### **Content-Based Theories**

Career development has a relatively short history, starting approximately the same time that Parsons began vocational counselling in 1909 (Brown, 2002; Patton & McMahon, 2014). His work identified three main components of career development: (a) self-knowledge, (b) knowledge of the working world, and (c) the relationship between them (Parsons, 1909). Parsons' work led to the development of the field into developing the first trait-and-factor theories, which over time led to developmental theories, followed by theories that combined traits and development, and more recently theories that emphasize the subjective self in career construction (Patton & McMahon, 2014). This recent innovation marks a paradigm shift from measurement of attitudes, values, and interests to a view of the individual and career as constructed within the social context (Patton & McMahon, 2014). Developments in the field are now recognizing the increases in globalization and are questioning the Western focus of these theories and their appropriateness in working with diverse cultural backgrounds (Patton & McMahon, 2014).

The first of the theory types to be discussed are theories that focus primarily on individual qualities over developmental processes, known as content-based theories. Some of the oldest and most researched theories, content-based theories are frequently used to understand vocational development and behaviour. Alternatively called person-environment theories, these approaches



were an evolution of the trait-and-factor counselling accompanying the Social Reform movement at the start of the 20<sup>th</sup> century (Patton & McMahon, 2014; Swanson & Fouad, 2010). The assumption underlying these approaches is that a reciprocal relationship exists between the individual and the environment in which they work, where individuals who ‘fit’ their environment are happier and experience more positive work outcomes (Swanson & Fouad, 2010). They view career influences as internal or intrinsic to the self, or projecting from the context of their lives (Patton & McMahon, 2014).

It has been noted that content-based theories have received more attention in the career development field due to their emphasis on the individual over environmental and social influences (Patton & McMahon, 2014). Predominant theories that fall into this category are trait-and-factor approaches (including Parsons’ trait theory and Holland's Vocational Personalities and Work Environments), Bordin's psychodynamic approach, Brown's Values Theory, adjustment approaches (including Dawis and Lofquist's Theory of Work Adjustment and Dawis' Person-Environment Correspondence Theory), and personality based approaches (including the Big Five approach by McCrae and Costa; Patton & McMahon, 2014). Two of the better known content-based theories, Holland’s Theory of Vocational Personalities and Work Environments, and the Theory of Work Adjustment are outlined below.

**Theory of Vocational Personalities.** Influential since its introduction into the career development literature, Holland’s Theory of Vocational Personalities and Work Environments is one of the oldest and most researched of all the content-based theories (Swanson & Fouad, 2010). This theory has four main assumptions: (a) individuals can be understood in terms of their similarities to six personality types, (b) environments can be similarly classified into the same six types, each with their own opportunities and challenges, (c) individuals seek out environments that are similar to or ‘fit’ their personality type, and (d) the interaction between individuals and

their environments produces behaviour (Holland, 1997). Furthermore, Holland discussed the concept of congruence, whereby individuals who matched their environment were thought to be more satisfied in their occupation and more likely to stay (Mount & Muchinsky, 1978; Smart, Elton, & McLaughlin, 1986). When individuals and their environments are mismatched, they are said to have low congruence and job dissatisfaction is typically a result (Elton & Smart, 1988; Mount & Muchinsky, 1978).

As previously discussed, Holland described six personalities or career types, including (a) Realistic, (b) Investigative, (c) Artistic, (d) Social, (e) Enterprising, and (f) Conventional (Holland, 1997). In terms of personalities, each type has a particular set of skills, values, preferences, goals, and problem-solving approaches (Swanson & Fouad, 2010). Realistic types are described as having mechanical and psychomotor skills, and being practical, thrifty, and reliable; Investigative types are described as having mathematical, analytical, and scientific skills, and being task oriented, introspective, and curious; Artistic types are described as having creative imaginations and verbal-linguistic skills, and being independent, self-expressive, and intuitive; Social types are described as having verbal and teaching skills, and being humanistic, idealistic, and cooperative; Enterprising types are described as having leadership, resilience, and high energy, and being ambitious, competitive, and status conscious; and finally Conventional types are described as having organizational and mathematical skills, and being conscientious, orderly, and practical (Holland, 1997). No one person is a single pure type, but are rather described as a combination of one primary type and one or two secondary types, resulting in a two to three letter combination denoting a person's vocational personality type (Swanson & Fouad, 2010). For example, the researcher was an ASI vocational personality (Artistic, Social, and Investigative). These types are said to be stable over time, which has found empirical support in longitudinal research (Helwig, 2003).

Perhaps one of the most defining features of Holland's theory, the types were arranged in a hexagonal structure, with types similar to each other adjacent to each other, and types very dissimilar to each other on opposite sides; this geometric relationship was termed calculus (Holland, 1997). Individuals' types on the hexagon are thought to be an indication of consistency; individuals who have types adjacent to each other on the hexagon are said to be more consistent than individuals who have types and interests opposite each other (Holland, 1997).

Holland's theory states that individuals' vocational choice is an expression of their self-concept, and that individuals in the same occupation would have similar personalities and vocational histories (Holland, 1997). There has been empirical support for this theory in terms of predictive value (Helwig, 2003; Hogan & Blake, 1999) applicability to career counselling with university students (Wigington, 1983), self-efficacy (Srsic & Walsh, 2001), and cross-cultural validity (Khan & Alvi, 1991; Yu & Alvi, 1996). However, the results of cross-cultural validity studies have been mixed (Long & Tracey, 2006; Yang, Stokes, & Hui, 2004). There has also been mixed research regarding Holland's concept of congruence, leading to a call for a paradigm shift (Spokane, Meir, & Catalano, 2000).

**Theory of Work Adjustment.** Another person-environment fit model, the Theory of Work Adjustment is complementary to Holland's typology with its focus on vocational adjustment (Swanson & Fouad, 2010). Developed in 1964 by Dawis, England, and Lofquist, the Theory of Work Adjustment identifies aspects of individuals and work environments that predict how satisfied employees will be in a particular job, and how long they will stay in that occupation. Two main features that predict tenure are the individuals' abilities in relation to the skills required by the job, and the individual's needs and values in relation to the rewards offered by the job; mismatch between any of these factors results in job dissatisfaction and attrition (Dawis, 2005). These are best understood in terms of satisfactoriness (i.e. how well the

individual's abilities meet job requirements) and satisfaction (i.e. how well the needs of the individual are met by the job; Tinsley, 1993). If the abilities and requirements match, the individual is said to be satisfactory; tenure occurs when the individual is satisfied and meets satisfactoriness (Dawis, 2005).

Building on this underlying structure, interactions between values, abilities, requirements, and reinforcement or reward patterns predict job satisfaction and tenure (Dawis, 2005). This theory also takes into account how personality and environmental variables account for the differences in behaviour between individuals who have similar values and abilities, through examining their interactions with the work environment (Swanson & Fouad, 2010). In this vein, Dawis (2005) identified four main types of work adjustment that occur when individuals find there is a mismatch between their needs and the job requirements: (a) flexibility, (b) perseverance, (c) activeness, and (d) reactivity. Flexibility is the individual's ability to tolerate the mismatch before they take action. Perseverance is the individual's ability to continue after noting the mismatch and work to restore equilibrium. Activeness is where the individual adjusts the environment to fit their needs, such as asking their supervisor for a reduced workload. Reactiveness is where the individual adjusts themselves to fit the environment, such as taking a time-management class. This theory also recognizes that an individual's current occupational situation can be a product of the wealth or poverty of opportunities available when developing their skills and identifying their needs, taking into account discriminatory factors such as racism and sexism (Davis, 2005).

The Theory of Work Adjustment has been used extensively in counselling and research, and has generated a lot of research (Tinsley, 1993) and empirical support (Bretz & Judge, 1994; Lauver & Kristof-Brown, 2001; Lyons, Velez, Mehta, & Neill, 2014), and has been recognized for its bridging between vocational psychology and industrial/organizational psychology

(Hesketh, 1993). The theory has been cross-culturally validated including ethnicity (Eggerth & Flynn, 2012; Lyons et al., 2014) and sexual orientation (Lyons, Brenner, & Fassinger, 2005). However, there are criticisms that the theory does not differentiate enough between person-job fit and person-organization fit (Lauver & Kristof-Brown, 2001), that its constructs are difficult to operationalize and measure (Bizot, 1993; Lawson, 1993), and that the theory needs to be modified to reflect changes in the career development field (Bizot, 1993; Hesketh, 1993).

### **Process-Based Career Theories**

In contrast to content-based theories that view career development as an event, process-based career theories view career development as a process that grows and develops over the course of the lifespan (Swanson & Fouad, 2010). Theories of process position career as interactive and changing over time, and typically describe this process as developmental stages that individuals must progress through (Patton & McMahon, 2014). Major theories in this category include Ginzberg's Developmental Theory, Super's Life Span Life Space Theory, and Gottfredson's Theory of Circumscription and Compromise (Patton & McMahon, 2014). Two of the most prominent theories in this category, Super's Life Span, Life Space theory and Gottfredson's Theory of Circumscription are described in more detail below.

**Life Span, Life Space Theory.** First published in 1957, Super's developmental theory was one of the most influential in the 20<sup>th</sup> century (Borgen, 1991). Its main contribution was to describe the many aspects of career throughout the lifespan, including the roles one held in their working life and their personal life, known together as life space (Super, 1980). There are a number of roles that one could have and many roles were often held concurrently; as the individual grows and matures, old roles diminish and new ones rise, causing the life space to change (Super, 1980). Moreover, the salience of the role changes depending on the career stage

individuals are in, and roles often interact and conflict (Herr, 1997). Identifying which roles conflict is one way this theory has been applied to career counselling (Okocha, 2001).

The second central concept to Super's theory is the concept of life span, described as the developmental vocational stages that individuals go through (Super, 1980). Each stage has its own opportunities and challenges, and successful resolutions of each stage's challenges are theorized to prepare the individual for the next stage (Swanson & Fouad, 2010). The stages were outlined as follows: (a) growth, (b) exploration, (c) establishment, (d) maintenance and management, and (d) disengagement (Super, 1980). Growth is seen as the start to the career development process through forming a vocational identity; exploration occurs when individuals attempt to fit their self-concept into societal roles; establishment is when individuals' self concept is implemented into a work role; maintenance occurs when individuals decide whether to stay and maintain a particular occupation or to make changes; and finally disengagement occurs when individuals retire and leave the workforce (Swanson & Fouad, 2010). Although Super conceptualized the stages as linear and predictable (that is, individuals progressed from each stage in order and around the same age), he recognized that these stages were not invariant, and that some would progress through the life span differently (Swanson & Fouad, 2010). Super theorized that it is the combination of life space and life span that individuals navigate and exist in that determines and explains career behaviour (Salomone, 1996).

Supporters of this theory view vocational development as a process, where decisions made are a representation of the individual's self concept (Swanson & Fouad, 2010). Moreover, each vocational choice the individual makes is seen as a closer approximation or match between the world of work and the individual's vocational self (Swanson & Fouad, 2010). In Super's theory, the individual constructs careers in their continuous self-evaluation in their own social context; individuals consider occupational roles that fit with their self-concept, which in turn is

shaped by the feedback they receive from their external world in the form of significant others (e.g. parents, teachers, employers; Swanson & Fouad, 2010).

Although Super died in the late 1990s, his work was continued posthumously to include a constructivist perspective, with an emphasis on the subjective, active construction and interpretation individuals use to create their reality (Savickas, 1997). His theory has been used extensively in career counselling (Okocha, 2001; Perrone, 2005; Szymanski, 1994), and his proposed model of career and life satisfaction has been well-researched (Perrone, Ægisdóttir, Webb, & Blalock, 2006; Perrone & Civiletto, 2004; Perrone, Webb, & Blalock, 2005). However, there have been criticisms that some propositions of his theory have not been tested empirically (Salome, 1996), and that it should include cultural variables such as sexual orientation and gender to better explain career barriers (Herr, 1997; House, 2004).

**Theory of Circumscription and Compromise.** Classified as one of the developmental theories, Gottfredson's Theory of Circumscription and Compromise was developed to explain why even as children, vocational and educational expectations differ by gender, ethnicity, and social class (Gottfredson, 2005). In contrast to the content-based approaches, which view career choice as an implementation of the self, this theory positions vocational choice as an implementation of the social self (Swanson & Fouad, 2010). Gottfredson theorized that when choosing a career, personal variables (such as interests and values) were circumscribed by social variables (like gender and social status; Gottfredson, 2005). This circumscription starts early in childhood, with children beginning to construct their ideas about acceptable career choices as early as age 3 (Swanson & Fouad, 2010). As children develop, they become more sensitive to sex-type (i.e. jobs that are typically seen as 'masculine' or 'feminine') and prestige (i.e. jobs that are higher or lower in status) as they relate to occupations, and eliminate occupations that do not fit with their acceptable levels of prestige and sex-type, or are too difficult to obtain (Gottfredson,

2005). This is known as the 'zone of acceptable alternatives', and takes into account the social messages children receive about what is considered 'appropriate' for their gender and social status (Swanson & Fouad, 2010).

When adolescents discover that some jobs or opportunities are inaccessible (due to barriers or other circumstances), they begin the process of compromise where ideal occupations are eliminated in favour of realistic ones (Gottfredson, 2005). If no suitable careers remain in the zone of acceptable alternatives, individuals begin to search outside their imposed boundaries, sacrificing their interest over their perceived acceptable jobs for sex-type or prestige level (Gottfredson, 2005).

Despite this theory's ability to address the societal influences of sex-role expectations and social status, there are few studies researching it (Flouri, Tsivrikos, Akhtar, & Midouhas, 2015; Hartung, Porfeli, & Vondraecek, 2005). Two reasons for this have been proposed: the difficulties researchers have in assessing childhood perceptions, and the difficulties in teasing apart sex-type, prestige, and personal interests in career decision-making (Swanson & Fouad, 2010).

### **Content- and Process-Based Theories**

The third category to be discussed is career theories that include both content and process. Although there is strength in content-based approaches and process-based approaches, it was later recognized that both need to be acknowledged and incorporated into career development theories (Patton & McMahon, 2014). Major theories in this category include Mitchell and Krumboltz's Social Learning Career Theory, Krumboltz's Happenstance Learning Theory, Lent and colleagues' Social Cognitive Career Theory, Peterson and colleague's Cognitive Information Processing Theory, and Vondraecek and colleagues' Developmental-Contextual approach (Patton & McMahon, 2014). For the purposes of this study, Social Cognitive Career Theory and Happenstance Learning Theory are discussed in more detail. These theories were selected for



their utility in understanding why individuals follow a different career path than they or their families may have anticipated, and the role that career events and learning play in career choice.

**Social Cognitive Career Theory.** A relatively new theory compared to the first two theories presented, Social Cognitive Career Theory focuses on how individuals personally construct events, and seeks to explain how career interests develop, how career choices are made, and how individuals perform in completing career tasks (Swanson & Fouad, 2010). This approach is grounded in Bandura's (1977) social learning theory. Bandura's theory emphasizes that learning and human behaviour are the result of observation – individuals learn how to behave through observing others, receiving reinforcement from others and feedback from their environment; these determine what behaviours are likely to be repeated or discarded (Bandura, 1977). However, Bandura recognized that cognitions moderated what was seen as reinforcing, highlighting that individuals needed to perceive an event and its consequences as correlated and not merely due to chance (Bandura, 1997).

Bandura also discussed self-efficacy, or the perceptions individuals have regarding their ability to successfully complete specific tasks (Bandura, 1997). This is also present in Social Cognitive Career Theory, which posits that self-efficacy (an individual's perception of his or her ability to successfully complete a task) mediates what individuals know and dictates their subsequent behaviour (Lent et al., 1994). Stated more simply, what individuals believe regarding their ability to accomplish a task helps them decide what action to take. Applied to career, an individual's belief about their ability to complete tasks related to career decision-making and skill development dictates whether they engage in that task, or avoid it (Lent et al., 1994). Moreover, self-efficacy is seen as situation-specific (e.g. self-efficacy is different for mathematical tasks, artistic tasks, etc.), and develops from the individual's previous performance, accomplishments, observing others, verbal feedback from others, and psychological states (Lent et al., 1994). This

relationship is also present in Bandura's social learning theory (Bandura, 1977). It is important to note that self-efficacy is different from outcome expectations, which is defined as the individual's reasonable expectations as to the consequences of the behaviour (Swanson & Fouad, 2010). Together, perceptions of self-efficacy and outcome expectations create the individual's perception of reality, which is the greater determinant of behaviour (Swanson & Fouad, 2010). The individual's perception of reality is seen as more influential for decision-making than objective reality, and has been used extensively in career counselling to identify negative self-efficacy beliefs and outcome expectations, identify barriers, and develop strategies to overcome and manage barriers (Swanson & Fouad, 2010). This approach has been used to explain women's traditional career choices – contextual affordances such as gender role expectations and a lack of family support, in combination with low self-efficacy beliefs and negative outcome expectations are seen as leading to an avoidance of more 'male typed' careers (Hackett & Betz, 1981). Social Cognitive Career Theory also identifies several models that predict and explain career development and behaviour. The Interest Model describes how career interests develop, where self-efficacy beliefs and outcome expectations predict what interests form, which in turn influences goal planning, selection of activities, and performance; the Choice Model describes how personal inputs (such as age, ethnicity, and gender) and background contextual factors (such as financial background and available opportunities) influence learning experiences and outcome expectations; and the Performance Model predicts individuals' performance and persistence in career goals through past accomplishments, self-efficacy, outcome expectations, and goal selection (Lent et al., 1994). Included in these models are contextual supports and barriers that can constrain career choice, highlighting that it is not only personal inputs that affect career development, but the social and environmental factors as well (Lent, Brown, & Hackett, 2000).

There are several strengths identified for this theory. Social Cognitive Career Theory (similar to Bandura's theory) identifies that personal factors, environmental factors, and overt behaviour have a reciprocal relationship, highlighting the dynamic and interactive influence between these variables that traditional person-environment fit theories do not (Lent et al., 1994). This theory also highlights the interaction between intrinsic variables and background contextual variables that influence learning experiences, creating space for explanations of societal barriers and expectations that are not addressed through other theories (Swanson & Fouad, 2010). In addition, this theory, and specifically the concept of career self-efficacy have been the topic of several research studies (Ali, McWirtter, & Chronister, 2005; Betz & Klein Voyten, 1997; Donnay & Borgen, 1999; Gianakos, 1995, 2001), including family influence (Garcia, Restubog, Toledano, Tolentino, & Rafferty, 2012; Hargrove, Creagh, & Burgess, 2002) and cultural differences (Kenny, Blustein, Chaves, Grossman, & Gallagher, 2003; Mau, 2000).

**Happenstance Learning Theory.** Krumboltz (2009, 2011) developed the Happenstance Learning Theory to account for the different career paths individuals take throughout their lifetime (Krumboltz, 2009). He theorized that the majority of human behaviour is due to the learning that occurs from planned and unplanned events that individuals experience, cumulating in skills, knowledge, beliefs, and future actions (Krumboltz, 2009). These situations are a combination of factors outside of the individual's control, and other factors that are initiated by the individual; which factors they focus on determines their attitudes and behaviour (Krumboltz, 2009). Other factors that influence behaviour are genetic makeup, learning experiences (including self learning and observational learning), the environment, parents, peers, education, and the often biased world we live in (Krumboltz, 2009). Interactions between these factors influence not only what individuals experience, but also how they experience and learn from it (Krumboltz, 2009).

Krumboltz outlined four important propositions (2009). First, the goal of vocational counselling is not for clients to make a single career decision, but instead to help clients take steps to achieve satisfaction in their work and personal lives. Second, the use of assessment tools in career counselling should be to facilitate learning, rather than trait-and-factor matching. Third, clients learning to engage in exploration can generate positive unplanned events, which are seen as normal and necessary for every career. And fourth, the success of career counselling is not determined by what is accomplished in session, but by what the client accomplishes outside of it.

One strength of Happenstance Theory is the emphasis placed on career counselling and its benefits for clients. In particular, it provides counsellors with concrete actions to use with clients (Krumboltz, 2011; Krumboltz, Foley, & Cotter, 2013). For example, counsellors can work with clients to clarify goals, brainstorm action steps, positively reinforce clients' actions, and help clients overcome their fear of making mistakes or the 'wrong' choice (Krumboltz, 2011). There is some empirical evidence supporting the impact of chance events in career development (Bright, Pryor, Chan, & Rijanto, 2009; Bright, Pryor, & Harpham, 2005), but there is much that has yet to be tested, as the theory is still quite new (Krumboltz, 2009, 2011).

### **Constructivist and Social Constructivist Theories**

The fourth category of career development theories are the most recent in comparison to the other theories. Constructivist and social constructivist theories emphasize the holistic view and see individuals as the active constructors of their reality, including their career (Patton & McMahon, 2014). Constructivism sees the individual as an 'open system' – individuals are active agents, constructing their life and career by making changes based on the continual interaction with their environment and social sphere (Patton & McMahon, 2014). Major theories classified as constructionist or social constructivist are Patton and McMahon's Systems Theory Framework, Savickas' Career Construction, and Pryor and Bright's Chaos Theory (Patton &

McMahon, 2014). Given its widespread use and utility, the Systems Theory Framework will be discussed in further detail.

**Systems Theory Framework.** In an attempt to unify the fragmented and incomplete field of career development theory, Patton and McMahon (2014) created the Systems Theory Framework, a metatheoretical framework that could be used with different theoretical bases (Patton & McMahon, 2006). This theory takes a holistic approach to individuals and career, and posits that by focusing on one aspect of the individual (e.g. self-concept), other aspects and their interaction with each other are ignored (Patton & McMahon, 2006).

Systems Theory Framework views career as a complex and dynamic system of connected influences (McMahon, 2011). Patton and McMahon proposed several systems that interact and influence each other, starting with the individual system (Patton & McMahon, 2014). In the individual system are influences such as personality, gender, ethnicity, sexual orientation, and ability. Also included in the individual system are health and disability, which can have a profound impact on the employment (or unfortunately in many cases, unemployment) of individuals, which Systems Theory recognizes (Patton & McMahon, 2014).

Recognizing that we do not live in a vacuum, the individual system is connected to the social (e.g. family, peers, media, etc.), and environmental and societal (e.g. geographical location, socioeconomic status) systems that we all live in (Patton & McMahon, 2014). The inclusion of media as a social structure is seen as particularly important, as media plays a role in socialization and is where a large portion of information about the environmental and societal spheres is communicated to individuals (Patton & McMahon, 2014). Social structures are seen as the source of values, beliefs, and attitudes, which are disseminated to the individual in varying ways, for example changes in school curriculum, or a family's beliefs about work (Patton & McMahon, 2014). In terms of political influences, even the decisions made by policy makers around work

and education impact career, as provision of benefits or school funding impact what opportunities are available, and to whom (Patton & McMahon, 2014).

Each system is open to the other, acknowledging that systems and influences change over time; known as recursiveness, the Systems Theory Framework acknowledges that the past influences the present, and the present influences the future (Patton & McMahon, 2006). The fourth influential system included is chance, highlighting the impact of chance on career choice and development, particularly as constructed by the individual (Patton & McMahon, 2014).

A considerable strength in this theory is its applicability to career counselling (McMahon, 2005; McMahon, Patton, & Watson, 2004), multicultural counselling (Arthur & McMahon, 2005), and its acknowledgement of multiple influences and contexts (Patton & McMahon, 2014). Systems Theory Framework acknowledges individual and social dimensions that other theories have traditionally neglected (e.g. disability, sexual orientation, etc.; Patton & McMahon, 2014). Additionally, the Systems Theory Framework allows counsellors to engage clients in narrating their career stories, and construct future career stories (McMahon, 2011). There is some research that has been conducted to test its utility in understanding influences on career choice (Bryne, 2007) and its ability to be integrated with other theories (McIlveen, 2007), but more research is needed in these areas.

### **Sociological Theories**

The final theory to be examined is a sociological theory of career. Although the primary theories are within the realm of psychology, there are useful theories found in sociology that can be used to predict and explain career choice (Brown, 2002). It should be noted that there are some difficulties in applying sociological theory to understanding psychological processes, given the different focus of the two disciplines (Brown, 2002). However, sociological theories can give an alternative, societal-level perspective in how career and occupational choice can be

conceptualized. Some theorists have even made a call for the career development field to include interdisciplinary perspectives (Patton & McMahon, 2014). One such perspective is the theory of Status Attainment, which is described in further detail below.

**Status Attainment Theory.** Status Attainment Theory describes the concept of stratification, or the division of society into a hierarchy based on power or socioeconomic status (Scott & Marshall, 2012). Originally described by Blau and Duncan (1967), Status Attainment Theory posits that occupational outcomes are largely characterized by social mobility from one generation to the next (Blau & Duncan, 1967). Specifically, this social mobility is due to the parents' occupational and educational attainment, whereby the social status of the parent has an influence on the level of education attained by the child, which then influences the occupational achievement of the child (Scott & Marshall, 2012). Developing over the span of the life cycle (Sonnenfeld & Kotter, 1982), this social mobility is termed 'status attainment', and is further differentiated into upward mobility (moving to a higher social status) or downward mobility (moving to a lower social status; Scott & Marshall, 2012). Moreover, the type of status differs depending on how that status came to be attained. Ascribed status is a social position that is assigned at birth (e.g. daughter, son), or assumed involuntarily (e.g. becoming a widower when one's spouse dies; Scott & Marshall, 2012). In contrast, achieved status is the social position one assumes voluntarily, through personal ability and effort (e.g. becoming an athlete, lawyer, etc.; Scott & Marshall, 2012). Using a representative national sample of 20,000 men between age 20 to 64, Blau and Duncan found that educational attainment (e.g. the highest level of education that participants completed) was a large independent influence on later occupational attainment, whereby individuals who had higher levels of education achieved higher level careers (Blau & Duncan, 1967).

This theory has been expanded to include other factors, including high school performance, the influence of significant others (such as peers, family, and teachers), and students' educational and occupational aspirations (Sewell & Hauser, 1972). In a study later named the Wisconsin Model, socioeconomic status origins were found to be a key variable in status attainment, regardless of how socioeconomic status is defined (Sewell & Hauser, 1972). Participants in the Wisconsin Model research study who were from a lower socioeconomic background were found to show lower levels of educational attainment compared to their higher socioeconomic status peers, regardless of gender (Sewell & Hauser, 1972). However, the influence of significant others can increase the level of educational attainment if skill or ability is seen to be present (Sewell & Hauser, 1972). This theory has generated a multitude of research studies (Kerckhoff, 1984), and a lot of empirical support (Berzin, 2010; Kristensen, Gravesth, & Bjerkedal, 2009; Tsai, 2010). Further research expanded the theory to include gender (Farmer, 1985; Treiman & Terrel, 1975), and ethnicity (Beutal & Anderson, 2008; Kristensen et al., 2009).

Overall, Status Attainment theory describes how educational and family background impact status attainment through social psychological processes, and recognize how career and educational aspirations impact occupational attainment (Blau & Duncan, 1967; Sewell & Hauser, 1972). This theory has been successfully applied to career development and career counselling in the following ways: sustaining clients' occupational and educational aspirations (Berzin, 2010), understanding the impact of work-family values and gender role expectations on attainment (Davis & Pearce, 2007), providing education to parents around their role in promoting educational and occupational success (Berzin, 2010), building up low educational and occupational expectations for youth, and providing important information around the impact of education on occupational attainment (Faas, Benson, & Kaestle, 2013). However, there are considerable criticisms of this theory, as it does not address changes in occupations' social status



over time, occupational changes due to economic reasons, and assumes that individuals remain static (Sonnenfeld & Kotter, 1982).

In conclusion, career development theories have been classified into general categories: content-based, process-based, content and process-based, or constructivist approaches (Patton & McMahon, 2014). There are perspectives that can also be used from other disciplines, such as sociology. Of the theories covered in this section, some of the most influential have been Holland's Vocational Personalities, Super's Life Space Life Span Theory, Gottfredson's Theory of Circumscription and Compromise, Krumboltz's Happenstance Learning Theory, and Patton and McMahon's System's Theory Framework (Swanson & Fouad, 2010). Each of these theories has been and continue to be used in career development research and counselling. With each theory there are strengths and limitations, however the primary goal of this discussion is to determine which theory is best suited to understand university students' development as it pertains to family and cultural influence, and career decision making. The section following will examine these factors in more depth.

### **Considerations for Career Choice in University Students**

As discussed in the previous section, there are many different theories that can be used to understand university students' career choices and the factors that influence the decision-making process. Given the wide array of theories that exist, choosing one theory can be a difficult process. Content-based theories are useful in identifying personal attributes present in the career choice process; for example, much of previous research has used Holland's Person-Environment Fit theory to explain how people with similar personalities or attributes choose similar subject areas and work environments (Swanson & Fouad, 2010). This approach has also been used to identify cultural differences in career selection (Hou & Leung, 2011). Process-based theories are useful in identifying social and environmental influences on career choice and recognize that

career choice is more of a developmental process; for example, Gottfredson's theory identifies how career choices are retained or discarded over time with environmental and social influences (Swanson & Fouad, 2010). However, given that the current study is examining content (e.g. self-efficacy) and processes (e.g. cultural and family influences), a content and process-based approach such as Social Cognitive Career Theory is the most desirable (Patton & McMahon, 2014). Moreover, with the emphasis of this study placed on students' perceptions of influences and self-efficacy in making career decisions, a Social Cognitive Career Theory foundation was deemed the most appropriate as it takes into account both the cognitive aspects and the contextual aspects of career decision-making (Swanson & Fouad, 2010). This theory is also relevant for this study as research has supported its use with diverse gender, racial, and ethnic groups, and accounts for the differences in career development individuals experience due to these personal characteristics (Lent et al., 2000; Swanson & Fouad, 2010).

Another theory that could be a useful framework for the current study would be Status Attainment Theory; however, the current study focuses on students who arguably have not 'attained' their status as of yet, as they have not completed their studies. In addition, examining prestige in this context would be through a more Western lens, as what is seen as prestigious in one cultural context may not be the same in another cultural context. There is also the difficulty of applying sociological theory to psychology research (Brown, 2002). As such, Social Cognitive Career Theory was deemed the most relevant theory for this research.

Using the Social Cognitive Career Theory as a framework, the next section reviews the career development literature on family influences and cultural influences, with particular attention paid to university students and international students. The consequences of forced career choice will also be considered.

## **Family Influence**

The topic of family influence on career has been one of interest for decades, and has generated a lot of research interest, particularly in how this influence spans across the career development process. Career development begins early in the developmental process, with some theorists identifying infancy through childhood and into adolescence as some of the key formative years (Hartung et al., 2005). As early as elementary school children are forming ideas about the world of work and occupational preferences, though the research in this area is fragmented (Schultheiss, 2008). In childhood family influence is already present, as children often identify career aspirations in the same area as their parents' current occupation (Helwig, 1998). The family setting has a significant influence on children's attitudes and perceptions towards the world of work, where children observe their parents' expression of positive and negative work experiences, and work affect (Porfeli et al., 2008). Family influence has also been found to influence motivation to attend university, with greater family influence relating to higher motivation to pursue post-secondary education (Jung, 2013).

With this interest in family influence, the question becomes which family members are influential on career development. One foundational study found that 69% of participants identified their mother as influential, 59% identified their father, 45% identified an extended family member (such as a grandparent, aunt, uncle, or other family member), and 38% identified a sibling (Kotrlik & Harrison, 1989). Other early research has supported this finding, where parents are the most commonly reported source of direct suggestions for career direction (e.g. what career to pursue; Trice, McClellan, & Hughes, 1992), and sources of career assistance (Peterson, Stivers, & Peters, 1986; Schultheiss, Kress, Manzi, & Glasscock, 2001). One early study found that 50% of their young adult participants perceived their family as moderately to strongly affecting their career decision-making, more-so than societal or environmental

influences (O'Neil et al., 1980). Another study found that mothers are more likely to encourage their children to pursue nontechnical academic majors in college (Simpson, 2003). Related to this, one study found that same-sex parent-child dyads (e.g. mother-daughter, father-son) were given more weight or significance by the family than opposite-sex dyads (e.g. mother-son, father-daughter) in terms of career development (Pizzorono, Benozzo, Fina, Sabato, & Scopesi, 2014).

This familial influence includes not just parents, but siblings as well. Sibling influence has been found to be an important factor during times of career or educational transition, and occurs in several ways: (a) emotional support, (b) social integration, (c) esteem support, (d) information support, (e) role modeling, and (f) similarities in personality and values (Schultheiss, Palma, Predragovich, & Glasscock, 2002). Emotional support was characterized by closeness, encouragement, loyalty, and reliability; social integration was described as having someone to discuss career concerns with, and similarities in interests and demeanors; esteem support was identified as siblings' confidence in and encouragement of their skills and abilities; information support was described as providing information about the working world; role modeling was identified as having someone to look to for guidance on what to do (or in cases of a negative role model, what to avoid); and personality and values was characterized as participants' sharing these traits with their siblings (Schultheiss et al., 2002). Siblings have also been reported as an important influence on career choice: students entering special education programs identify having a sibling with a disability as influential on their decision to pursue a special education occupation (Chambers, 2007; Marks, Matson, & Barraza, 2005).

**General trends.** Overall trends regarding family influence and career choice have been studied through two major meta-analyses. The first was conducted by Schulenberg, Vondracek, and Crouter (1984) and examined literature published before 1980. Results were organized around three main themes: where the family was located within the greater social context, what

the structure of the family looked like, and what processes existed within the family unit (Schulenberg et al., 1984). They concluded that the most influential factors on career choice and attainment were the socioeconomic status of the family in combination with the individual's ethnic background. Specifically, they found that individuals who had lower socioeconomic status in combination with ethnic minority status were more likely to hold low-status low-paying jobs, and that the majority of the research focused on socioeconomic status (particularly on children from lower socioeconomic backgrounds and its effects on career aspirations and expectations; Schulenberg et al., 1984). Other significant findings include the effect of gender on career development, whereby the authors found that if a mother worked outside the home, her daughter was also likely to work outside the home. It was also found that sons were more likely to follow in the same career of their father if the father-child relationship was strong (Schulenberg et al., 1984). They discovered that research examining family interaction patterns on career development (with the exception of one author) was largely ignored in the published work before 1980.

The career development field and the research within it have undergone a significant shift since then. A meta-analysis conducted by Whiston and Keller (2004) examined 77 articles (published from 1980 – 2002) from 29 different journals to examine the nature of family influence on several aspects of career over the lifespan, including childhood, adolescence, young adulthood and college, and adulthood. Their meta-analysis found that for young children, parental variables were the most influential during the early elementary school years (Whiston & Keller, 2004). Specifically, they found that parental influence on their children's career choice was often parents' own occupations and career expectations. In contrast, for adolescents family structure factors (e.g. socioeconomic status and parents' occupational achievement) were found to influence career choice, but that family environment factors played a strong role as well (Whiston

& Keller, 2004). Family support and career expectations were also found to be related to higher career aspirations (Whiston & Keller, 2004). They found that adolescents' higher occupational expectations and career direction were positively associated with high occupational expectations from their parents, and a supportive family environment (Whiston & Keller, 2004). In particular, parental support for one career or another strongly impacted the direction their adolescent children took (e.g. pursuing a career in business) and their children's later occupational attainment (Whiston & Keller, 2004).

Whiston and Keller (2004) found that for the literature examining young adulthood, the influence of family on career development was still a strong factor, specifically when parents were warm, encouraging, and supportive of their adult children's independence and emotional development (Whiston & Keller, 2004). In regards to career decision-making self efficacy, this meta-analysis found that parent-child attachment, relationship conflict (i.e. the presence or absence of conflict), and fostering their children's independence were the most salient factors for college students (Whiston & Keller, 2004). Specifically, students whose parents recognized their autonomy, and had a strong relationship with low conflict tended to have higher self-efficacy in making career choices. The analysis found some inconsistent results regarding the nature of the family environment, but the authors tentatively identified families that are controlling, enmeshed, and organized as contributing to students' career decision-making difficulties (Whiston & Keller, 2004). They concluded that for college students, career maturity, occupational exploration, vocational identity development, career decidedness, and career choice were all factors that were impacted by family influence, but highlighted the lack of research investigating the cultural and racial differences on family influence; to date there have been some contributions but more research is needed in this area.

Overall, the meta-analysis found that despite the difficulties in drawing concrete conclusions from the accumulated literature, there were trends suggesting family variables influence career development in predictable ways (Whiston & Keller, 2004). Children, in general, appeared to identify strongly with their parents' occupations, but that this declined as the children aged (Whiston & Keller, 2004). Progressing into adolescence, the level of education attained by parents influenced their children's aspirations from childhood onward. Specific variables identified that had the strongest empirical support were family structure variables (e.g. socioeconomic status, divorce, etc.) and family process variables (e.g. warmth, parent-child attachment, etc.), and that family process variables had both positive and negative impacts (Whiston & Keller, 2004). In regards to college students, the authors discovered mixed findings regarding whether students identified family as a positive or negative influence, but there was general consensus that the influence was strong regardless of direction. Negative influences that impaired career development included unrealistic parental expectations, and positive influences that facilitated career development included parents' encouragement of autonomy, supportive parent-child relationships, and mutual respect (Whiston & Keller, 2004). Overall, the authors suggested that their findings indicated that family factors cannot be examined alone and that other contextual factors (e.g. gender, SES, race) need to be taken into account to understand the complex nature of career development and career choice.

From these meta-analyses, it becomes clear that family has a strong influence on the individual over several areas of career development and spans across the lifespan. To better understand the specifics of family influence on the various aspects of career development on college students, some studies have been selected for a more in-depth discussion.

The previous discussion of Whiston and Keller's (2004) meta-analysis highlighted the importance of family process variables on career development, whereby students whose families

were characterized by warmth and low conflict reported better career development outcomes. This has found to be true not only of intact families, but divorced families as well. In a study conducted by Johnson, Buboltz, and Nichols (1999), college students from divorced families were compared to college students from intact families in terms of their vocational identity. The family relationship was conceptualized as containing three main dimensions: conflict, cohesion, and expressiveness. What researchers found was that all three of these variables related to vocational identity, especially expressiveness (which was found to be the most predictive of students' vocational identity). Students who reported experiencing greater family cohesion, higher levels of expressiveness in the family (being able to express opinions), and lower rates of conflict were found to have higher levels of vocational identity (Johnson et al., 1999). That is, they were more established in their sense of self as it related to career and work than their peers whose family relationships were characterized by low cohesion, low expressiveness, and high conflict. Parental marital status was not found to be a significant factor in vocational identity – students whose parents were divorced were no more likely to have low family relationships than students whose parents were together (Johnson et al., 1999). From this, the authors concluded that the family function processes (e.g. cohesion, expressiveness, conflict) were stronger predictors of career development than socioeconomic status.

**Gender differences.** Parents' gender role expectations can also have a profound effect on their children's career self-efficacy. A study conducted by Chhin, Bleeker, and Jacobs (2008) examined the effect of gender role expectations and socialization on the self-efficacy beliefs of their sons and daughters. It was found that daughters whose mothers who held more traditional gender role expectations expressed high self-efficacy for traditionally 'female-typed' careers (e.g. nursing, teaching, etc.), and low self-efficacy for traditionally 'male-typed' careers (e.g. science, engineering, etc.; Chhin et al., 2008). Sons whose mothers held traditional gender role



expectations expressed low self-efficacy for ‘female-typed’ careers, but did not display any significant change in self-efficacy for ‘male-typed’ careers compared to their peers whose mothers held more egalitarian gender role expectations. In contrast, daughters whose parents held more egalitarian gender role expectations demonstrated higher math and science achievement compared to their peers whose mothers ascribed to more traditional gender role expectations (Chhin et al., 2008). This clearly demonstrates the impact of parental (and in this case, maternal) influence on career decision-making and self-efficacy.

In a similar vein, Li and Kerpelman (2007) discovered that the parent-daughter relationship had a profound impact on career decision-making. Daughters who reported a strong connection to their parents were more likely to experience distress when their parents expressed disagreement with their chosen career path. Moreover, this strong bond meant that these young women were more likely to adjust or completely change their career aspirations to please their parents compared to their peers who reported a weaker parent-child bond (Li & Kerpelman, 2007). Other research supports the finding that the parent-child bond and family dynamics have a strong influence on career choice and development for adolescents and young adults (Berríos-Allison, 2005; Hartung, Lewis, May, & Niles, 2002; Singer, 1993; Young et al., 2001).

**Direction of family influence.** The influence of family can be positive, or negative. Young, Friesen, and Borycki (1994) explored parental influences on their young adult children’s overall career development and found that there were five narratives that participants identified: (a) progressive narrative that had a dramatic turning point, (b) progressive narrative framed by positive evaluation, (c) progressive narrative with negative evaluation, (d) anticipated regressive narrative, and (e) the sad narrative. For young adults in the first category, they identified that poor parenting they experienced in their childhood had diminished their career hopes and aspirations, but that their relationship with their parents took a dramatic turn that allowed them to identify

goals and become more self-sufficient (Young et al., 1994). Young adults in the second category reported adhering to their parents' expectations because they believed their parents had the best intentions at heart. Participants from the third category felt that their parents did not contribute positively to their career path, but that they were making their own progress. The fourth group, anticipated negative narrative, expressed predominant themes of failure: they felt that despite some initial successes, they would be doomed to fail and be unable to live up to their parents' expectations. Participants in the final group, the sad narrative, described a steady negative decline in their sense of control, self-esteem, goals, and hope due to their perception of their parents' lack of support (Young et al., 1994).

A study by Sankey and Young (1996) discovered similar themes to Young and colleagues (1994), but according to students' stage of identity. Students who had achieved a stable sense of identity, and some students who were exploring their identity described finding their career aspirations despite any past conflict with their parents. Career development for students who were in the process of forming their identity was characterized by a dramatic turning point, while students who had not engaged in identity exploration were progressing towards their goals by being accommodating to their parents' expectations for them (Sankey & Young, 1996).

**Family influence and career self-efficacy.** Although the link between parental support and positive career outcomes has been established, there have been differences found between what parents perceive as supportive, and what their children see as supportive (Garcia et al., 2012). Students with higher ratings of parental support were more likely to have higher levels of self-efficacy and greater persistence in pursuing a career than students with low ratings of parental support, but only if the parental support was perceived to respect their autonomy and competence (Garcia et al., 2012). Family career support and the perceived quality of the family relationship have also been found to influence self-efficacy and career goals, whereby students

who perceived their family as supportive, open, and had low levels of family conflict reported higher levels of career self-efficacy and stable career goals (Hargrove et al., 2002). Adolescents' attachment to both their mother and father has also been a noted contributor to career self-efficacy and career aspirations (O'Brien, Friedman, Tipton, & Linn, 2000). Moreover, although adolescents with strong bonds with their parents and their peers tend to have higher levels of self-efficacy, the parent-child bond has been found to be a stronger predictor of self-efficacy (Nawaz & Gilani, 2011).

### **Cultural Influence**

Similar to family influence, cultural influence on career has generated a lot of research, particularly in recent decades. The current section will focus on the differences between collectivist and individualist cultures in career development, the relationship between cultural influence and career development, and cultural influence on decision-making self-efficacy. When defining culture, one of the most comprehensive definitions is best outlined by Singaravelu (1998):

“[Culture is] the body of complex knowledge, such as concepts, beliefs, attitudes, emotions, habits, language, etc. which is common to a group of people and affects their life and behaviour” (Singaravelu, 1998, pp.19).

Within this definition, one of the most common conceptions includes individualism and collectivism, which is thought to influence career variables such as career decision-making and career planning (Hartung et al., 2002). Individualism is conceptualized as a focus on the individual (prioritizing personal goals over those of the group), and valuing traits such as independence, competitiveness, uniqueness, privacy, direct communication, and personal goals (Williams, 2003; Shulruf et al., 2011). Stated another way, individualism is characterized by emotional independence from in-groups (such as family, school, and other communities;

McCarthy, 2005). In contrast, collectivism is conceptualized as a focus on the group or collective (putting group goals before those of the individual), and valuing traits such as advice seeking, harmony, duty, sense of belonging, group orientation, and often a hierarchical structure (Williams, 2003; Shulruf et al., 2011). Collectivism is typically characterized by its dependence on in-groups and emotional dependence (McCarthy, 2005). Both individualism and collectivism are descriptions of cultural orientations, and have frequently been used to describe cultures (McCarthy, 2005). Often when these concepts are viewed in the context of culture, the entire culture is viewed as one way or the other; however, this is not the case in reality (Williams, 2003). Most cultures are a combination of both individualistic and collectivistic elements, and those who live in and are a part of that culture are no different (Williams, 2003; Shulruf et al., 2011).

**Cultural influence and career identity.** Personal identity has been demonstrated to be a key part in the career development process, and this is true of ethnic identity (Duffy & Klingaman, 2009). In a study examining 2,432 first year college students, ethnic identity was found to be strongly related to career decidedness, particularly for African American and Asian American students (Duffy & Klingaman, 2009). For students with a strong racial/ethnic identity, career decidedness (e.g. how firm they were in their career choice) was higher than their peers without a strong sense of self; the authors theorized that these students had already engaged in self-exploration and identity formation, which are important steps in career decision-making (Duffy & Klingaman, 2009). The same relationship was not found for students who were European-American, or for students who were Latina/Latino (Duffy & Klingaman, 2009).

Other research has supported differences in identity and self-esteem (which is part of identity) for different cultural groups. Differences in identity and self-esteem between first-generation American college students and non-first generation college students were examined by

Alessandria & Nelson (2005). Participants included 175 students who completed measures on both identity development, and self-esteem. They found that first-generation American students had higher self-esteem than non-first-generation American students, and posited that these differences could be due to first-generation American students looking to their parents' as role models for their ability to successfully immigrate and overcome the challenges of moving to a new country (Alessandria & Nelson, 2005). Although no significant differences were found between the two groups in terms of strength of identity, they suggested it could be that first-generation American students had a stable sense of self that they developed before attending university, and that this sense of self positively contributed to their self-esteem (Alessandria & Nelson, 2005).

**Cultural influence and career self-efficacy.** Cultural influence has also been found to be a factor in career self-efficacy. A study conducted by Mau (2000) examined cultural differences in career decision-making self-efficacy and career decision-making style. Using samples of both American and Taiwanese students, the researcher found that Taiwanese students were more likely to use a dependent decision-making style (e.g. seeking advice, conforming to societal and familial expectations) compared to their American peers. Moreover, they were more likely to endorse a rational decision-making style (e.g. cognition and logic), which the researcher indicated may be necessary for these students to function successfully in their more collectivist context (Mau, 2000). Taiwanese students were also found to score lower on decision-making self-efficacy than American students, which could be a reflection of their collectivist values (Mau, 2000). Other research on career decision-making self-efficacy points to the effect of acculturation on students' self-efficacy development (Tang, Fouad, & Smith, 1999).

In a study conducted by Singer (1993), self-efficacy was explored in relation to international students and their decision of whether to return to their home country or stay in the

host country after graduation. The sample included 205 male international students studying at five post-secondary institutions in Western Australia; students' countries of origin included Malaysia, Singapore, Hong Kong, Thailand, and Taiwan. Participants completed a questionnaire to assess the following: desire to work in their home country, desire to work in the host country, expectations for working in both Australia and their home country, and self-efficacy perceptions of staying to work in Australia, and returning to their home country. An independent group of Chinese international students was invited to complete a list of possible outcomes for working in both the host country and their home country, and generated a list of 16 outcomes. These outcomes were then presented to the main group of participants, and they were asked to rate them in the following ways: how likely each of the events were to occur if they stayed in Australia, how likely each of these events were to occur if they returned to their home country, and how desirable or valuable each of the possible events were to them (Singer, 1993). Self-efficacy was further divided into effectiveness self-efficacy (how effective individuals felt they would be in their work), ability-match self-efficacy (how well individuals felt their abilities would match required skills), and ease-of-success self-efficacy (how easily individuals felt they would be able to succeed and receive promotions).

Participants were divided into two main groups based on their results: those who reported wanting to stay in Australia (N = 75) and those who reported wanting to return home (N = 114). Results found that students wishing to return home believed the outcomes of beginning a career back home were more favourable, they would be able to work more effectively, there would be a better match with their skills and abilities, and that they would be better able to succeed than if they were to stay in Australia (Singer, 1993). For students wishing to remain in Australia, they reported that they would be more effective working in Australia than back home, and that their abilities would be better matched in Australia. However, their scores indicated that they believed

the outcomes of choosing to stay or return would be equally favourable, and that they would be able to succeed easily in either country.

Both groups valued different outcomes in regards to their choice. For example, both groups placed more emphasis on having a good environment to live in, and enjoying the freedom offered by a democratic society as valued outcomes for deciding to stay in Australia. In regards to the decision to return, both groups reported valuing attaining an interesting job; students intending to stay in Australia expressed that being able to be themselves and relax as a value that would need to be met in order to return home, whereas students intending to return home indicated that being able to create their own future was an important value (Singer, 1993). In short, students wishing to return had higher self-efficacy beliefs for starting a career in their home country, whereas students wishing to stay had higher self-efficacy beliefs for starting a career in the host country, significantly influencing their decision (Singer, 1993).

### **Interaction of Family and Cultural Influence**

Family influences and cultural influences are so entwined it is difficult to tease them apart, especially in the context of career and career decision-making. The family is often the first point-of-contact for learning about career and the world of work, typically by observing parents' work behaviour and their attitudes towards work (Porfeli et al., 2008; Whiston & Keller, 2004). We even ask children from an early age, "What do you want to be when you grow up?", prompting children to begin career aspirations as early as elementary school (Whiston & Keller, 2004).

In individualistic cultures, family support is typically shown through expressing feelings and perceptions while minimizing pressure and control; this allows individuals to feel competent and autonomous (Supple, Ghazarian, Peterson, & Bush, 2009). In collectivist cultures, personal choice still exists but career is often negotiated between personal aspirations and family

expectations (Fouad et al., 2008). Values of what makes a ‘good’ career are expressed implicitly and explicitly, and it is not uncommon for members of collectivist cultures to give greater importance to family values over personal preferences (Shin & Kelly, 2013).

Previous research has supported the importance of family support for students from minority backgrounds (Fisher & Griggs, 1995; Fisher & Padamawidjaja, 1999). Specifically, family providing career development opportunities, encouragement, supporting autonomy, and maintaining high career expectations have been identified as critical variables in career development (Fisher & Griggs, 1995; Fisher & Padamawidjaja, 1999). Observational learning from parents is also important, as 60% of students in one study described how their parents would work any job they could to ‘make ends meet’, which influenced students to pursue more professional occupations to avoid the same struggle (Fisher & Padamawidjaja, 1999).

Other research has found that perceived family conflict and psychological distress have greater impacts on career development for students from minority status backgrounds, where higher levels of psychological distress led to higher levels of career indecision, and in turn predicted higher levels of perceived family conflict (Constantine & Flores, 2006). In contrast, students who perceived lower levels of conflict within the family reported higher career aspirations than students who reported higher levels of family conflict, highlighting the importance of the family unit for these minority status groups (Constantine & Flores, 2006).

In a study conducted by Shin and Kelly (2013), the impact of family relations, optimism, and intrinsic motivation on vocational identity was examined in college students from America and South Korea. Participants included in the study were 164 college students from a large Midwestern US city, and 183 college students from a large university in Seoul, South Korea. Students completed measures on family relationships, vocational identity, optimism, and intrinsic motivation (e.g. internal drive to complete tasks/goals), as well as a demographic questionnaire.



Family relations were defined as support from the family and the ability for individuals to express positive and negative affect freely within the family (Shin & Kelly, 2013). The researchers predicted that intrinsic motivation would act as a mediator between optimism and vocational identity, through which students who held a more optimistic outlook would be more likely to be intrinsically motivated, and therefore have a stronger vocational identity (Shin & Kelly, 2013).

Results showed that students who had more optimistic attitudes displayed greater intrinsic motivation, and in turn reported having a stronger sense of vocational identity compared to students who reported a more pessimistic outlook. It was also found that the relationships students had with their families had a strong impact on their optimism and intrinsic motivation, and therefore their vocational identity, and that the relationships between these variables differed across the two cultures (Shin & Kelly, 2013). Specifically, the role of family relationships was different across these two cultures whereby the American students with higher levels of optimism had more intrinsic motivation and vocational identity when their family relationships were cohesive, expressive, and had low conflict. The authors suggested that the role family support played in this context (i.e. in a more individualistic cultural environment) was to encourage their independence and self-sufficiency (Shin & Kelly, 2013). For the Korean students, the same relationship was not found. Interestingly, in the Korean student group it was the students with the poorest reported family relationships (i.e. higher levels of conflict, lower expressiveness, and lower family cohesion) that tended to have greater optimism and vocational identity. Due to the nature of this study the researchers were not able to ask follow-up questions and probe further, but suggested that optimism may be a resource students used to build vocational identity in the face of poor family relationships. This research highlighted the importance of family support in the career development process, but that these processes differ across cultures (Shin & Kelly,

2013). They also speculated that the family support may help with the integration of collectivist values, as students with little to no family support can still build an adequate vocational identity (Shin & Kelly, 2013).

Cultural differences were also found in a sample of Thai and Australian students (Hughes, 2011). In a study by Hughes (2011), the relationships between individualism-collectivism, parenting style, career maturity, and self-concept was explored in populations of Australian and Thai high school students. Specifically, the researcher was interested in career planning, and career exploration and the potential differences that existed between these two cultural groups in regards to these constructs. Participants included 158 Thai students from high schools in Bangkok, and 218 Australian students from private, public, and Catholic high schools. Students completed scales measuring career maturity, self-concept, parental attachment, and individualism-collectivism, and the differences in scores were compared across the two groups (Hughes, 2011).

Results showed that the Thai students were significantly more collectivist than Australian students, but displayed some variations. Some Thai students were more idiocentric (i.e. more focused on the self), while some Australian students were more allocentric (i.e. more focused on the people around them), showing that different individualistic-collectivistic orientations exist not only between cultural groups, but within them as well (Hughes, 2011). The researchers also found that the Australian cultural group reported significantly more positive parental relationships than the Thai cultural group. In general, the results showed that Australian students who saw themselves as intelligent, had positive relationships with their parents, did not see their fathers as over-protective, and saw their parents as caring had a more positive attitude towards career exploration and career planning. However, this same relationship was not found in the Thai student sample. Students from the Thai cultural group reported more positive relationships

with same-sex peers than parents, compared to students from the Australian cultural group who reported more positive relationships with parents than same-sex peers (Hughes, 2011). Overall, researchers concluded that students whose parents' parenting style included caring, concern, warmth, and support were more likely to have positive attitudes towards career exploration and career decision-making, highlighting the importance of parenting style on positive career development (Hughes, 2011). Moreover, the factors influencing career maturity in one cultural context may not be the same or show the same impact on career maturity in a different cultural context (Hughes, 2011).

Family has also been found to have an impact on college adjustment, or how students adjust to the stresses and demands of post-secondary education. A study conducted by Melendez and Melendez (2010) examined the influence of parental attachment on the college adjustment of White, Black, and Latina women. All participants completed measures on parental attachment (i.e. the Parental Attachment Scale (PAQ) with subscales Affective Quality of the Relationship, Parents as Facilitators of Independence, Parental Fostering of Autonomy, and Parents as a Source of Support), college adjustment (i.e. the Student Adaptation to College Questionnaire [SACQ ]) with subscales Academic Adjustment, Social Adjustment, Personal/Emotional Adjustment, and Goal Commitment/Institutional Attachment, and a demographic questionnaire (e.g. age, gender, ethnicity, etc.). Participants included 95 first year students from a large commuter college on the Eastern seaboard in the United States. Of the sample, 24 were White (25%), 27 were Black (29%), and 44 were Latina (44%).

Results showed that students who scored higher on the affective quality subscale of the PAQ (which measured students' perceptions of their parents' understanding, sensitivity, availability, and acceptance) were more likely to be managing the academic requirements and stresses of college than students who did not. Moreover, the students with higher scores on this

subscale were more likely to be managing the psychological stress and health concerns related to stress than students who did not, and were better able to form an attachment to their college (Melendez & Melendez, 2010). The parental support scale was found to be correlated significantly with students' institutional attachment, whereby students who saw their parents as supportive were more attached to their college institution than students who did not. The researchers theorized that students who were able to form strong attachment bonds to their parents may be better able to form an attachment to their institution because their relationship with their parents was an anchor or safe place from which they could explore (Melendez & Melendez, 2010). Moreover, they suggested that students who were strongly attached to their parents may have increased feelings of security due to their parents' support and were better able to form attachments outside of the family.

There were some observed cultural differences. White students who saw their parents as supportive, understanding, and emotionally available tended to be better able to manage academic stress (Melendez & Melendez, 2010). Latina students who perceived their parents as offering more support were better able to form an attachment to the college, and reported higher levels of pride in their institution. Black students who perceived their parents as understanding, available, and accepting were better able to manage the academic and emotional stresses of college. Furthermore, Black students who viewed their parents as fostering their independence were better able to manage the personal and emotional stress of college while avoiding psychological distress (Melendez & Melendez, 2010).

Overall, students who saw their parents as supportive, understanding, available, and accepting were more likely to feel attached to their academic institution and better able to manage academic and emotional stresses of college, suggesting that parental attachment and support could help prepare students for and act as a buffer against the emotional, personal, and academic

stresses of college (Melendez & Melendez, 2010). However, they acknowledged that for students who are women from diverse ethnic backgrounds, there may be incongruence between the family's values and expectations and those of the college institution, which can make the stresses of college greater than those of their White peers (Melendez & Melendez, 2010).

In terms of the impact of family influence and cultural context on career self-efficacy, a study conducted by Sawitri, Creed, and Zimmer-Gembeck (2014) examined parental influences and adolescents' career behaviours within a collectivist cultural setting. This study's sample included 351 grade 10 students enrolled in an Indonesian high school, and participants completed scales on parental career expectations, adolescent-parent career congruence, and career self-efficacy, aspirations, outcome expectations, planning, and exploration. The authors found that adolescent-parent career congruence was more strongly associated to self-efficacy than parents' career expectations; meaning that students overall felt that congruence with parents on career issues was more important and boosted their confidence more than matching perceptions of parents' career expectations, though these expectations were also considered important (Sawitri et al., 2014).

As can be seen in the presentation and discussion of the family influence and cultural influence, the importance of both in research on career decision-making self-efficacy and career choice becomes evident. The influences appear to be generally positive in nature, but the question then becomes what happens to students' career outcomes if this influence is negative and they are forced into a career or educational program that is inconsistent with their aspirations. The following section will attempt to answer this question.

### **Consequences of Forced Career Choice**

Given the strong support for family and culture as influencing factors on career development and choice, the discussion now turns to an examination of how career choice can be

negatively impacted if these influences are too strongly imposed on the individual. Savickas (2002) suggested assertiveness and independence in close relationships was vital to the development of one's competencies and sense of control required to make career decisions. Furthermore, individuals whose families were supporting their autonomy have significantly higher intrinsic motivation compared to individuals from more controlling families (Ryan & Deci, 2000).

When families are controlling, career outcomes are more negative; family intimidation (e.g. controlling, rigid expectations) and family enmeshment (e.g. the degree to which families are emotionally reactive and dependent in unhealthy ways) was examined by Larson and Wilson (1998). In their sample of 1,006 college students, they found that students who reported increased family intimidation and enmeshment also reported significantly higher anxiety levels than their peers who had reported lower levels of intimidation and enmeshment. This intimidation led to an increased number of career decision problems due to increased levels of anxiety. Unrealistic, rigid expectations from family increase anxiety and fears around inability to meet these expectations, and the consequences if expectations are not met (e.g. withdrawal of love, punishment, etc.; Larson & Wilson, 1998). The authors pointed to the link between anxiety, career indecision, and the increased risk of remaining indecisive (Larson & Wilson, 1998).

Research has also documented the strong effect of family influence in regards to gender, particularly for women (Chhin et al., 2008; Li & Kerpelman, 2007). Controlling family environments can have a negative impact on a woman's career choice, increasing career indecision and potentially influencing career decisions that are premature (Whiston, 1996). Previous literature has documented the link between career decidedness and job satisfaction (Earl & Bright, 2007), and those who feel forced into a particular choice are likely to have higher

levels of anxiety and indecision (Larson & Wilson, 1998; Whiston, 1996), which has significant implications for their career satisfaction.

Family pressures and expectations contribute to university attrition as well; in a study conducted by Hunt and colleagues (2012), reasons for dropping out of university were examined in first-generation students and non-first generation students. For 61% of respondents, family pressures were the primary reason for leaving university. Moreover, first-generation students were significantly less likely (63%) than non-first generation students (83%) to say that their families supported their decision to attend university, and were also more likely to indicate family expectations were interfering with their studies (Hunt et al., 2012). First-generation students were also significantly more likely to indicate stress, anxiety, and depression as a barrier to their continued study (compared to non-first generation students, who indicated frequently missing class as the primary barrier).

**Summary.** As seen from previous research, high-pressure and controlling family influence can have significant negative consequences for university students. These include increased anxiety (Larson & Wilson, 1998), lower motivation (Ryan & Deci, 2000), and an increased likelihood of dropping out of university (Hunt et al., 2012). Moreover, these influences appear to have a greater impact on first-generation university students (Hunt et al., 2012). As such, the importance of understanding family influence on career choice is of particular importance for international students.

### **Integration of International Students**

The previous sections have focused on the significant influence of family and culture on career development for university students in general. However, are these influences experienced the same way for international students, and what does this mean for universities and international students' career? International student enrollment has been increasing steadily

around the globe, and Canada is no exception. In 1989, approximately 19,000 international students came to Canada to study (CIC, 2013b); however, in 2012 Canada welcomed over 100,000 international students at hundreds of post-secondary institutions (CIC, 2013a), and thousands more to date (CIC, 2014). Moreover, the number of students accepted in 2012 was a 60% increase since only 2004 (CIC, 2013a). Citizenship and Immigration Canada classify international students as “temporary residents”, defining them as students who come to Canada for a short duration to study before returning home (CIC, 2013b, 2014). However, not all students decide to return home after graduation, instead choosing to stay in Canada and become permanent residents (Arthur & Flynn, 2011; CIC, 2013a; Shen & Herr, 2004; Singer, 1993).

With the large numbers of international students being welcomed to Canada, it is surprising that international students’ career development has been largely ignored by the literature (Singaravelu, White, & Bringaze, 2005). Previous research has found stronger family influence among international students as compared to domestic students, which has strong implications for career decisions (Singaravelu et al., 2005). Often, the choice to study in another country as an international student is strongly supported by their parents and family (Arthur & Flynn, 2011; Jachowicz, 2007). However, there are many barriers that international students face, one of which is cultural or language barriers, and the fear this barrier will prevent them from securing employment should they stay in the host country (Arthur & Flynn, 2011; Jachowicz, 2007). Other barriers these students often experience are challenges in meeting the academic demands of their program, immigration status and the ensuing restrictions, financial stress, family obligations, and limited student employment opportunities (Jachowicz, 2007).

**Career concerns.** International students do not always have the same career plans of studying in another country and then returning home (Shen & Herr, 2004). Some students choose to stay in the host country from the beginning of their studies (Arthur & Flynn, 2011), some



know they will return home immediately following graduation (Singer, 1993), and some remain undecided as to what path they will pursue (Shen & Herr, 2004). Moreover, this decision to stay or return is influenced by many factors, including family obligations, career opportunities, financial constraints, and the sociopolitical climate (Arthur & Flynn, 2011; Jachowicz, 2007; Shen & Herr, 2004; Singer, 1993). This means that international students face pressures that are distinct and unique from their peers who are domestic students (Arthur & Flynn, 2011; Jachowicz, 2007). One study found that international students experiencing greater stress in acculturating to the host country expressed lower career aspirations, and theorized that students' stress levels were preventing them from being able to focus on their career development (Reynolds & Constantine, 2007). These students also expressed less positive career outcomes, and concerns about their ability to be successful in social, academic, and career environments (Reynolds & Constantine, 2007).

Another significant concern for international students is the difficulties of obtaining employment and internship opportunities due to work visa restrictions (Arthur & Flynn, 2011; Shen & Herr, 2004). Many students highlight their desire for university services to offer workshops specifically for international students to navigate the often difficult process, and express disappointment when these services do not exist (Arthur & Flynn, 2011).

### **The Current Study**

Chapter Two focused on the key factors related to career development, family and cultural influence, and the impact these have on university students' career decision-making. These factors presented particular concerns for international students and their experiences of studying in a Canadian context, compared to their domestic student peers. Research points to the documented evidence that family and culture play a significant role in students' career decisions, which can have significant impacts on their future studies and job satisfaction. There is a gap,

however, in regards to international students' career development and the examination of family and cultural influence on career decision-making self-efficacy, as well as the differences that potentially exist between this group and domestic students.

With the key components reviewed, the chapter will now outline the specific goals of the current study. More specifically, this research seeks to close this gap in the literature and examine the differences between international students and domestic students in regards to family influence, cultural influence, and career decision-making self-efficacy. The study aims to meet this goal by answering the following research questions:

1. How do the factors of family influence and cultural influence relate to career decision-making self-efficacy in international and domestic students?
2. How does career decision-making self-efficacy differ by student status (international or domestic) and gender?
3. How does family influence differ by student status (international or domestic) and gender?
4. Do students choose their career based on their own career aspirations, or based on what they perceive their family expects them to pursue?

### **Summary**

The literature discussed in Chapter Two provided a historical overview and a survey of the current trends in research with family influence, cultural influence, and university students' career development (international students in particular). Key theories used in career counseling were reviewed, and particular emphasis was given to the Social Cognitive Career Theory as it is the theoretical framework for this research. In addition, the literature review touched on the impact of the social influences of family and culture on academic and vocational outcomes for students, and observed gender differences found in previous research. The research on

international students and their career development was also introduced. The potential for unique contributions through examining the similarities and differences between international and domestic students was highlighted in the rationale for the research goals of the current study.

### **CHAPTER 3: RESEARCH METHODOLOGY AND DESIGN**

The discussion in Chapter Two emphasized the importance of investigating family influence and cultural influence on career decision-making self-efficacy, and the potential differences between international students and domestic students. More specifically, the review of the literature brought into focus how family and culture impact students' career choice, which has long-term implications for their academic career (Hunt et al., 2012) and job satisfaction (Chen et al., 2004; Earl & Bright, 2007). With the nature of the research questions for this study and their empirical nature, a quantitative approach was selected (Ray, 2006). Specifically, assessment measures for family influence, cultural influence, and career decision-making self-efficacy were used to collect data from a larger group of participants. The data from these assessments allowed for statistical analyses to be conducted and provided information about how these factors are related, and what differences exist between these groups. Furthermore, a qualitative approach was also employed to examine the predominant themes surrounding students' career choice considerations. The discussion in Chapter Three will outline these empirical test protocols, their psychometric properties, the qualitative component of the study, and the procedure followed for recruiting participants and questionnaire administration.

#### **Research Design**

Using a quantitative research design allows for the researcher to determine statistically significant differences between groups, discover the relationships between factors or variables, and make conclusions based on these findings (Ray, 2006). In contrast, using a qualitative method allows participants the opportunity to describe their lived experiences and perspectives (Ray, 2006). Given the survey of the literature on family influence, cultural influence, and career development (in particular decision-making self-efficacy), the study takes a more holistic, mixed methods approach and includes both quantitative and qualitative analyses to discover differences

between these two groups and the relationships between these factors. Table 1 presents an overview of the analyses that were used for the current research.

Table 1

*Overview of Study Analyses*

Analyses	Variables	Outcome
Descriptive statistics	Participant demographics	
Correlation	Student status	Factor relationships
	Gender	
	Self-efficacy	
	Family influence	
	Cultural influence	
ANOVA	Student status	Self-efficacy
	Gender	
ANOVA	Student status	Family influence
	Gender	
Thematic analysis	Pursued career	Career choice themes
	Family's career	
	Family career expectations	

The researcher first examined descriptive statistics in order to compare and contrast the demographic qualities of participants in the current study to those in previous research. Next, a correlation analysis was conducted to examine the relationships between family influence, cultural influence, career decision-making self-efficacy, gender, and student status. Based on the results of the correlation table, a series of ANOVAs were conducted to determine the interactions between significant correlations to better ascertain the relationships between the factors.

Finally, a thematic analysis was undertaken to discover prominent themes from participants' answers to the short-answer questions surrounding participants' career choice, their family's career, and the participants' perception of their family's expectations for them. As seen in the theoretical underpinnings of Social Cognitive Career Theory, one's perceptions of expectations and performance are central to predicting and understanding career decisions and

behaviour (Lent et al., 1994). Thematic analysis was chosen as it allows the researcher to highlight the predominant themes of the phenomenon under study, and uncover both explicit and latent themes (Joffe, 2012). Participant responses were first collected into a singular document and then a preliminary reading was done, followed by a second reading where initial codes were noted. Initial codes were then collected into main themes, and then a third reading followed where codes were re-examined and sub-themes named. The final step was creating a document with the identified themes, subthemes, and supporting quotations. A simple frequency tally was also conducted to see how participant responses fell within the two main themes, and whether there was a match between their identified career pursuit and their family's career expectations.

### **Participants and Recruitment**

This research study and its recruitment procedures received approval by the Conjoint Faculties Research Ethics Board (CFREB) of the University of Calgary. Participants were undergraduate students studying at the University of Calgary, and included both international students and domestic students.

There were two main methods of recruitment for participants: email and in-person. A recruitment letter to participate in the study, detailing the nature of the research and the researcher's e-mail address, was sent to international students via the Centre for International Students and Study Abroad (CISSA) newsletter, whereby interested students contacted the researcher to set up a meeting time. The CISSA office is located on the University of Calgary campus, and is a centre offering support to international students and domestic students who choose to study abroad as part of their degree program. A copy of the invitation recruitment letter can be found in Appendix A.

In terms of in-person recruitment, the majority occurred through researcher visits to undergraduate classrooms. Classroom visits were arranged ahead of time with the permission of

the course instructor. Attempts were made to visit classes from varied disciplines, and included geology, statistics, sociology, education, and geosciences. Other in-person occurred through lunchtime events arranged and hosted through the CISSA office. An invitation to participate was sent through the CISSA newsletter and interested students signed up for the events through the CISSA website.

A sample size of approximately 80 participants (40 participants per group) was determined to be necessary to ensure a viable analysis, based on the general 5 subjects per cell 'rule of thumb' for ANOVA calculations (Goodwin, 2010). This study was restricted to undergraduate students, as previous research has found that age is a predominant factor in career maturity, with older students displaying higher levels of vocational identity (Johnson et al., 1999). Graduate students tend to be older than undergraduate students, and the researcher felt that graduate students would be more likely to be decided in their career path, as graduate school is often a greater step along the career path for many individuals. The study was also restricted to individuals aged 18-25, as it is the typical age bracket where most students first attend post-secondary and is a reflection of the typical undergraduate demographic found in the career literature (Whiston & Keller, 2004).

## **Materials**

In an effort to answer the research questions of this study, information was collected using various methods including empirical scales and a brief questionnaire probing participants' demographic information and career choice. The scales reported here are well-developed and reputable within the literature. Paper-and-pencil survey format was chosen over electronic or online survey format to better ensure test security, and the researcher's hope that in-person questionnaires would encourage more participation, given the typically low response rate of online surveys (Instructional Assessment Resources, 2011). Moreover, the researcher felt pencil-

and-paper was preferred as two of the three standardized measures were designed as paper-and-pencil protocols and have not yet been developed for online or electronic completion.

Due to copyright issues the empirical scales cannot be included, but instead can be found in their listed articles. Written permission to use each scale was obtained by e-mail correspondence with the developers of the assessment instruments. The following section outlines the assessment measures in more detail.

**Career Decision-Making Self-Efficacy Scale – Short Form.** Self-efficacy was originally proposed by Bandura (1977), and defined as an individual's beliefs regarding his or her ability to complete a particular task. Low self-efficacy beliefs for a particular task or behaviour often results in the individual avoiding the task or decreasing the frequency of the behaviour; high self-efficacy shows the opposite effect (Bandura, 1977). In career literature, self-efficacy has been used in career assessment to identify career development concerns and intervene appropriately (Betz & Taylor, 2012).

In the current study, the Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE-SF) was used to measure students' career decidedness. Developed by Betz, Klein, & Taylor (1996), the CMDSE-SF consists of 25 items and five subscales: (a) accurate self-appraisal, (b) gathering occupational information, (c) goal selection, (d) making plans for the future, and (e) problem solving. Individuals rate statements relating to their career decision-making ability on a 5-point scale, ranging from 1 (No Confidence At All) to 5 (Complete Confidence), with higher scores indicating higher career-decision making self-efficacy (Betz & Taylor, 2012). The short form of the scale was chosen to minimize the possibility of test fatigue, which the researcher felt could negatively impact results. In addition, the CDMSE-SF has been found to be psychometrically equivalent or better to the original long form, with coefficient alpha values (indicating reliability) of the five subscales ranging from 0.73 – 0.83, and the alpha value



of the total scale an impressive 0.94 (with the acceptable cut-off value of reliability at 0.70; Betz et al., 1996). Other studies have confirmed the scale to have high internal reliability (Creed, Patton, & Watson, 2002; Gaudron, 2011; Jin, Ye, & Watkins, 2012), and consistency (Chung, 2002).

**Family Influence Scale.** In order to assess students' level of family influence, the Family Influence Scale (FIS) was used. This scale was created to determine individuals' perceptions of family influence on work and career decisions, and consists of 22 items falling into four subscales: (a) informational support, (b) values/beliefs, (c) family expectations, and (d) financial support (Fouad et al., 2010). Statements regarding the role participants felt their family played in their career decision making were rated on a 5-point scale from 1 (Strongly Disagree) to 5 (Strongly Agree); higher scores indicated stronger family influence (Fouad et al., 2010). The scale demonstrated good validity and internal consistency, with Chronbach's alpha for the subscales ranging from 0.82 to 0.89 (Fouad et al., 2010). Given that the scale was only recently developed, there has been little research conducted regarding its psychometric properties. The scale was designed to assess family influence including other family members (e.g. grandparents, aunts and uncles) in addition to parents and siblings, as the definition and composition of family is different within and across cultures (Fouad et al., 2010). The scale was also developed to be useful for a broad age range of adolescents and adults (Fouad et al., 2010). At the suggestion of the test developer, two items were dropped from the analysis resulting in a total of 20 items.

**Auckland Individualism-Collectivism Scale.** To measure cultural influence, the Auckland Individualism-Collectivism Scale (AICS) was used. Developed in 2011 by Shulruf and colleagues, the scale comprises of 26 statements regarding cultural values and behaviours, which participants rate how frequently they engage in that behaviour on a scale from 1 (Never or Almost Never) to 6 (Always). Scores are determined by separately averaging the collectivist

items and individualist items and comparing the mean scores, resulting in four different dimensions: high individualism-high collectivism, high individualism-low collectivism, low individualism-high collectivism, and low individualism-low collectivism (Shulruf et al., 2011). Scale items can be further categorized into their respective subscales based on whether they were individualistic or collectivistic (Shulruf et al., 2011). Subscales for individualism include (a) competition, (b) uniqueness, and (c) responsibility; subscales for collectivism include (a) harmony, and (b) advice (Shulruf et al., 2011). In the scale's development, 1,166 students from five countries (New Zealand, Portugal, the People's Republic of China, Romania, and Italy) participated; the final version of the AISC in repeated testing has yielded high reliability (Chronbach's alpha ranging from 0.70 to 0.85; Shulruf et al., 2011) and was successfully able to differentiate between different New Zealand cultural groups (Shulruf et al., 2011).

**Demographic information.** Participants were asked to indicate their age, gender, academic major, their year in the program, their student status (international or domestic), their country of origin, and the amount of time they had spent living in Canada. This part of the questionnaire is combined with the questions on career aspirations and family expectations (discussed below) and can be found in Appendix B.

**Career aspirations and family expectations.** The final measure completed by participants was a researcher-developed survey. Students were asked what their current job or occupational pursuit was, what job or career their family had, and what job or career they thought their family wanted for them.

## **Procedure**

Questionnaire packets were printed and prepared before each classroom visit. The order of the materials in the questionnaire packet was as follows: the students' copy of the informed consent letter, the signature page of the informed consent letter for the researcher to keep, the

Career Decision-Making Self-Efficacy Scale – Short Form, the Family Influence Scale, the Auckland Individualism-Collectivism Scale, a demographic questionnaire, and three short open-ended questions probing students' career aspirations and family career expectations. During classroom visits, the researcher introduced herself and her research to the students by reading aloud the recruitment letter, which can be found in Appendix A. Interested students stayed in class while other students were given the opportunity to leave. The researcher then distributed the questionnaire packet and envelopes and students read and completed the informed consent. A copy of the informed consent letter can be found in Appendix C. When possible, students interested in participating completed the questionnaire packet during class time and returned the questionnaires in a manila envelope to ensure confidentiality. Students not able to complete the questionnaire during class time returned the questionnaire at a later date, or e-mailed the researcher directly to set up another time to participate. Participants who completed the questionnaire outside of class time were offered a chocolate bar as compensation for their time. Once the students completed the survey packet, the researcher thanked them for their time and participation.

Other in-person recruitment occurred through lunchtime events arranged and hosted through the CISSA office. The invitation to participate was sent through the CISSA list-serv, and interested students could sign-up through the CISSA webpage. An e-mail reminder was sent to participants by the CISSA office the day before the event. Participants were given a questionnaire package and after informed consent was obtained, filled out the questionnaire during the lunch hour with a light pizza lunch available as remuneration. Participants returned the questionnaire packet in the manila envelope, and were thanked for their time and participation. With all recruitment, after the surveys were returned the researcher had no further contact with participants.

Over the course of recruitment, a total of 115 surveys were handed out. Of these, 21 surveys were not returned, and 17 surveys were completed by participants who were over the age criteria. The final number of participants in the study was 77.

### **Summary**

The main purpose of Chapter Three was to introduce the mixed-methods paradigm used as the framework for this study. An outline of how to analyze the potential differences between international students and domestic students in regards to family influence, cultural influence, and career decision-making self-efficacy was presented, as well as how to examine the relationships between variables. This chapter also introduced the target populations selected for the study, the assessment instruments to measure the differences between these populations, and the administration procedure. Specific details around the recruitment process were also included. The information outlined in this chapter will provide a foundation for understanding the results of the quantitative and qualitative analysis, which will be presented in Chapter Four.

## **CHAPTER 4: RESULTS**

The discussion in the previous chapter outlined the research approach and methodology used in this study, including the study design and procedure. The content in Chapter Four will focus on the results of the data analyses. This chapter begins with an overview of participants' demographic information, including age, gender, program of study, country of origin, and student status. Next, results will be presented according to the research questions: (a) how do the factors of family influence and cultural influence relate to career decision-making self-efficacy in international and domestic students?, (b) how does career decision-making self-efficacy differ by student status (international or domestic) and gender?, (c) how does family influence differ by student status (international or domestic) and gender?, and (d) do students choose their career based on their own aspirations, or based on what they perceive their family expects them to pursue?

All data were checked for completion and cleaned through SPSS to ensure data were accurately entered and that necessary assumptions for each analysis were met. All analysis assumptions were met: data were normally distributed with minimal kurtosis and skew, had homogeneity of variance, had continuity and equal intervals of measures, and had independent observations (Kerlinger & Lee, 2000).

### **Demographic Information**

As noted in the previous chapter, a total of 77 participants provided usable data for the study. Less than 2% of survey data was missing, and series mean was used to impute missing values. In three cases participants indicated a score as 0.5 of a value (e.g. writing 3.5 on a Likert scale item); these values were rounded up to the next whole number. Two students did not indicate their student status and were assigned one based on their other demographic information (i.e., time living in Canada, country of origin). The average age of participants was 20.90 ( $SD=$

2.11; *Min*=18, *Max*=25), with 40.3% male and 59.7% female. Participants reported an average time in Canada of 14.92 years (*SD*= 8.545; *Min*= 0, *Max*= 25). Broken down further, 16.9% had been in Canada less than one year, 7.8% had been in Canada for 1-5 years, 2.6% had been in Canada for 6-10 years, 6.5% had been in Canada 11-15 years, 1.3% had been in Canada for 16-20 years, and 64.9% had been in Canada their entire lifetime. In terms of student status, 72.7% were domestic students, and 27.3% were international students. To further differentiate, 62.0% were born in Canada (Canadian-born) and 39.0% were born outside of Canada (foreign-born).

Participants were from diverse ethnic backgrounds, as seen in Table 2.

Table 2

*Ethnicity of Participants*

Ethnicity	Count	Ethnicity	Count
White/Caucasian	41	Danish	1
Chinese	10	First Nations	1
Canadian	4	Hispanic and European	1
Filipino	3	Iranian/Persian	1
Blank (no answer)	3	Mexican	1
Arab	1	Spanish	1
Black	1	Vietnamese	1
Brazilian	1	Western European	1
Chinese Irish	1	Zambian	1
Christian	1	½ African American, ½ Caucasian	1

*Note.* Count represents the number of participants who reported each item.

Participants also reported a variety of countries of origin, as seen in Table 3. They also indicated their academic major; students' majors have been matched to university faculty in Table 4 for ease of presentation. Academic majors were matched to Faculties using the University of Calgary website. Faculty of Arts included majors such as Law and Society, International Relations, Political Science, Psychology, Sociology, Economics, Communications, and Canadian Studies; Science included majors such as Chemistry, Biology, Geosciences, and Computer Science. When participants indicated a double-major, the major best corresponding to

their current occupational pursuit was marked as the primary focus and was included in Table 4.

The majority of participants were in the Faculties of Arts, Science, or Education.

Table 3

*Participants' Country of Origin*

Country of Origin	Count	Country of Origin	Count
Canada	46	Ghana	1
China	8	Iran	1
France	3	Ireland	1
Brazil	2	Mexico	1
Germany	2	Palestine/Lebanon	1
The Philippines	2	Poland/Ireland	1
Venezuela	2	Taiwan	1
Colombia	1	Vietnam	1
Denmark	1	Zambia	1
Germany/Netherlands	1		

*Note.* Count represents the number of participants who reported each item.

For year of study, 31.2% were in their first year, 16.9% were in their second year, 26.0% were in their third year, 18.2% were in their fourth year, 6.5% were in their fifth year, and 1.3% indicated no year. Participants were also asked to indicate their current occupational pursuit, their family's occupation, and the job or career they thought their family wanted for them. Given the wide variety of responses, frequency tables were deemed unsuitable to present the rich and complex data; these answers were analyzed in-depth using thematic analysis and will be presented later in the chapter.

Table 4

*Participants' Faculty/Program*

Faculty/Program	Count
Science	23
Arts	21
Education	17
Business	4
Open Studies/Undeclared	4
Fine Arts	3

Faculty/Program	Count
Engineering	2
Environmental Design	1
Kinesiology	1
Medicine	1

*Note.* Count represents the number of participants who reported each item.

## Descriptive Statistics

The descriptive statistics for each scale, and the means, standard deviations, and ranges for participants' scores are detailed in Table 5. In general, based on career decision-making self-efficacy scores, participants indicated they had more self-efficacy in making career decisions than not. Stated more simply, participants felt moderately confident in their ability to complete tasks related to career decision-making. Looking at the mean family influence scores, participants reported moderate levels of family influence. Finally, looking at the cultural influence scores, participants on average held more individualistic values (e.g. uniqueness, competition, responsibility, etc.) compared to collectivistic values (e.g. harmony, advice-seeking, etc.).

Table 5

### *Descriptive Statistics for Measures*

	CDMSE	FIS	AICS – Individ.	AICS – Colle.
Mean	3.81	3.07	4.37	3.84
<i>SD</i>	.50	.56	.66	.66
<i>Min</i>	2.44	1.70	2.81	2.45
<i>Max</i>	5.00	4.30	5.87	5.36

*Note.* CDMSE is the Career Decision-Making Self-Efficacy Scale – Short Form from Betz et al. (1996); FIS is the Family Influence Scale from Fouad et al. (2010); AICS – Individ. is the Individualism score of the Auckland Individualism-Collectivism Scale from Shulruf et al. (2011); and AICS – Colle. is the Collectivism score of Auckland Individualism-Collectivism Scale from Shulruf et al. (2011). All values represent raw, non-standardized scores.

## Research Question #1: Correlational Analyses

Research question 1 was written as follows: “How do the factors of family influence and cultural influence relate to career decision-making self-efficacy in international students and



domestic students?” To investigate this, bivariate correlational analyses were run with the three measures and a selection of the demographic variables. As the AICS gives two scores (one for individualism and one for collectivism), both are reported separately. There were significant relationships between certain variables, which are all reported in Table 6. In general, students who reported holding more individualistic cultural values also indicated higher levels of career decision-making self-efficacy. Students who reported holding more collectivistic cultural values indicated greater family influence. Domestic students reported higher levels of career decision-making self-efficacy compared to their international student peers, and students who were born outside of Canada reported lower levels of career decision-making self-efficacy than students who were Canadian-born. Students who were foreign-born were also more likely to be international students.

Table 6

*Pearson Correlations between Measures*

	1	2	3	4	5	6	7
1	-						
2	.03	-					
3	-.00	.77**	-				
4	.20	-.29*	-.31**	-			
5	.12	.01	.18	.14	-		
6	.18	.05	.20	.25*	.15	-	
7	-.13	-.05	.16	-.21	.24*	-.19	-

*Note.* \* $p < .05$ , \*\* $p < .01$ , \*\*\* $p < .001$ . 1 is gender; 2 is student status; 3 is birth country; 4 is the Career Decision-Making Self-Efficacy Scale – Short Form (Betz et al., 1996); 5 is the Family Influence Scale (Fouad et al., 2010); 6 is the Individualism scores from the Auckland Individualism-Collectivism Scale (Shulruf et al., 2011); and 7 is the Collectivism scores from the Auckland Individualism-Collectivism Scale (Shulruf et al., 2011).

## Research Question #2 and #3: Analysis of Variance

A one-way analysis of variance (ANOVA) was conducted to test the second and third research questions. The second research question was worded as follows: “How does career decision-making self-efficacy differ by student status (international and domestic) and gender?” For career decision-making self-efficacy, a one-way ANOVA was conducted for both student status and gender. There was a significant effect of student status  $F(1,75) = 6.69, p = .01$ , where domestic students ( $M = 3.89, SD = .46$ ) expressed greater career decision-making self-efficacy than international students ( $M = 3.58, SD = .53$ ). In terms of gender, women ( $M = 3.73, SD = .50$ ) reported lower self-efficacy scores than men ( $M = 3.93, SD = .48$ ), but no significant difference was found between these groups  $F(1,75) = 3.03, p = .09$ . See Table 7 for the ANOVA values.

Table 7

### *ANOVA Results for Student Status and Gender on Career Decision-Making Self-Efficacy*

	Source	SS	df	MS	F
Student_Status	Between	1.55	1	1.55	6.69*
	Within	17.40	75	.23	
	Total	18.95	76		
Gender	Between	.74	1	.74	3.03
	Within	18.22	75	.24	
	Total	18.95	76		

*Note.* \*  $p < .05$ . Student\_Status is whether participants were domestic students or international students. Gender is the participants' reported gender (female or male).

The third research question was: “How does family influence differ by student status (international and domestic) and gender?” To examine this question, a one-way ANOVA was conducted, analysing the impact of gender and student status on family influence scores. In terms of student status, international students ( $M = 3.08, SD = .54$ ) reported slightly higher family influence than domestic students ( $M = 3.07, SD = .57$ ), but the results of this test were not statistically significant  $F(1,75) = .01, p = .93$ . In examining gender and family influence, women

( $M = 3.01$ ,  $SD = .59$ ) reported lower family influence scores than men ( $M = 3.15$ ,  $SD = .51$ ), but this was not found to be statistically significant  $F(1,75) = 1.10$ ,  $p = .30$ . See Table 8 for ANOVA values.

Table 8

*ANOVA Results for Student Status and Gender on Family Influence*

	Source	SS	df	MS	F
Student_Status	Between	.00	1	.00	.93
	Within	23.68	75	.32	
	Total	23.69	76		
Gender	Between	.34	1	.34	1.10
	Within	23.34	75	.31	
	Total	23.69	76		

*Note.* \*  $p < .05$ . Student\_Status is whether participants were domestic students or international students. Gender is the participants' reported gender (female or male).

Given that the numbers between groups are unequal, a second series of ANOVA was conducted examining the effect of gender and birth country (i.e. Canadian-born or foreign-born) on career decision-making self-efficacy and family influence. There was a significant difference between groups in terms of career decision-making self-efficacy  $F(1,75) = 8.22$ ,  $p = .01$ . That is, Canadian-born students ( $M = 3.93$ ,  $SD = .49$ ) reported higher levels of career decision-making self-efficacy compared to foreign born students ( $M = 3.61$ ,  $SD = .46$ ). For family influence, Canadian-born students ( $M = 2.99$ ,  $SD = .48$ ) scored lower than foreign-born students ( $M = 3.19$ ,  $SD = .65$ ), but this result did not reach statistical significance  $F(1,75) = 2.36$ ,  $p = .13$ . See Table 9 for ANOVA values.

Table 9

*ANOVA Results for Career Decision-Making Self-Efficacy and Family Influence by Birth**Country*

	Source	SS	df	MS	F
CDMSE	Between	1.87	1	1.87	8.22*
	Within	17.08	75	.23	
	Total	18.95	76		
FIS	Between	.73	1	.73	2.36
	Within	22.97	75	.31	
	Total	23.69	76		

*Note.* \*  $p < .05$ . CDMSE is the career decision-making self-efficacy test measure. FIS is the family influence measure. Birth country is whether students are Canadian-born or foreign-born.

It should be noted that the sample sizes for the groups based on student status (international or domestic), and country of birth (Canadian-born or foreign-born) did not have equal numbers of participants. However, the statistical program used to conduct the analyses (SPSS) automatically detects unequal sample sizes and uses the appropriate formula to account for these differences in group numbers (Field, 2013). As stated at the beginning of the chapter, data was tested for normality of distribution and homogeneity of variance; the data was found to be normally distributed and the variance within groups was within acceptable ranges. For each ANOVA analysis, Levene's test of equality of error variances was conducted (a test of homogeneity of variance), and the values reported were non-significant, indicating that the groups had homogeneity of variance and did not violate the assumption of the ANOVA (Field, 2013). All values reported are ones that are automatically reported by SPSS.

**Research Question #4: Thematic Analysis**

The final research question was as follows: "Do students choose their career based on their own career aspirations, or based on what they perceive their family expects them to pursue?" To answer this, a thematic analysis was conducted. Described in Chapter Three, a

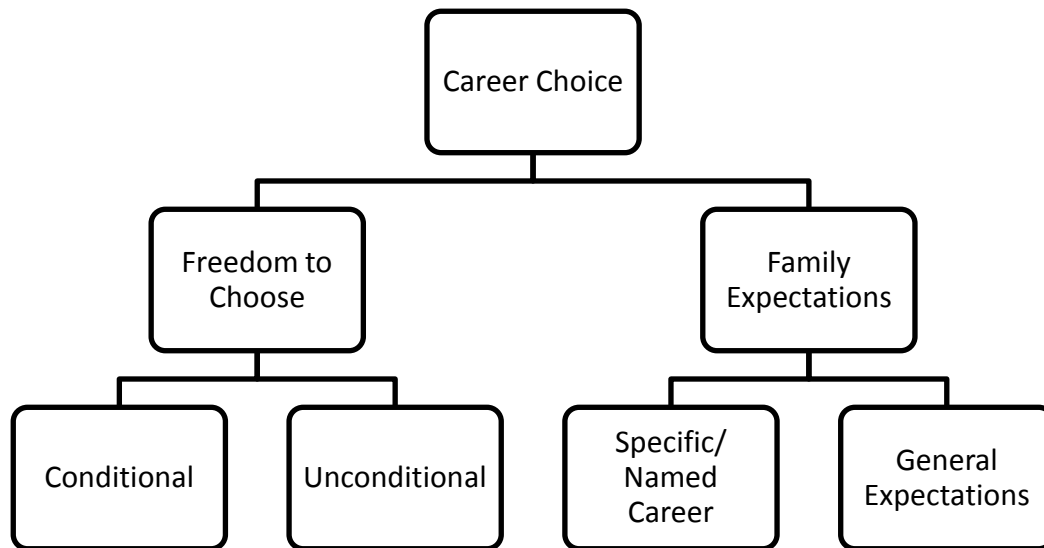
thematic analysis looks for explicit and latent meaning in participant responses, collecting them into predominant themes and subthemes (Joffe, 2012). In this study, participants' reported occupational pursuit (career aspiration), participants' family's career, and participants' perceptions of their family's expectations were compiled into a single document and analyzed. First, participants' reported career aspiration was compared to their current major – students whose major fit with their career aspiration were categorized as a match (N = 64), those whose major did not fit with their career aspiration were categorized as no match (N = 4), participants who indicated they were unsure of their career aspirations were categorized as undecided (N = 6), students who indicated they had career aspirations that had changed were categorized as changed aspirations (N = 2), and one student chose not to answer the question. Career aspiration/academic major matches were cross-referenced using the Government of Alberta ALIS website (Government of Alberta, 2014) and the University of Lethbridge Career Services web documents “What Can I Do With A Major In...” (University of Lethbridge, 2015).

Second, students' career aspirations were compared to their family's careers to determine if there was congruence. If a student indicated a career aspiration that was identical to a family member's career (e.g. their sister is an occupational therapist and the student wishes to become an occupational therapist), it was categorized as a match (N = 11). For students who were entering a career that was similar to a family member's career (e.g. their father is in engineering and the student is pursuing geosciences), it was categorized as a career type match (N = 9). Students who did not share a career with any reported family member was categorized as no match (N = 53). Three students declined to answer their family's occupations, and one student misunderstood the question.

Third, the family members named by students were tabulated to determine which family members were reported most often. The most common was general or unspecified (N = 41), but

as many as two to six occupations were listed. The second most mentioned were fathers (N = 30) and mothers (N = 29). Other family members included sisters (N = 5), brothers (N = 4), parents as a unit (N = 5), family as a unit (N = 2), and step-fathers (N = 1). Two participants declined to answer the question, and one student misunderstood the question.

Fourth, the answers participants provided regarding their perceptions of their family's career expectations were analyzed for themes. In terms of students' career choice and family expectations, there were two main themes: Freedom to Choose, and Family Expectations. Freedom to choose was further broken down into two subthemes – Conditional Freedom and Unconditional Freedom. Family Expectations was broken down into Specific/Named Career and General Expectations. See Figure 1 for a detailed flowchart of themes and sub-themes.



*Figure 1.* Main themes and sub-themes of participants' responses regarding their career choice.

Conditional Freedom was characterized by students expressing they were able to choose whatever career they wanted, provided it met some thresholds. The conditions mentioned were grouped into the following categories: Financial Independence, Future Planning, Job Characteristics, Person-Job Fit, Match Values, and Education. Financial Independence was when students indicated they had the freedom to choose, as long as their career choice would provide

them with financial stability. One participant described their family's expectations in the following way: "a career that provides financial stability and happiness". Future Planning was expressed when participants mentioned job satisfaction, future family, or an evolving occupation, indicating a future-oriented outlook. One participant described their family's expectations as, "whatever makes me happy. Also something that can support me and my future family". Job Characteristics was coded when participants expressed a general trait of an occupation, such as stable, intellectually stimulating, or responsibility. Person-Job Fit was characterized by enjoyment or an acknowledgement of how job characteristics needed to be complementary to participants' individual characteristics. An example was when one participant wrote the following: "The best, which is what I want! But an evolving one (not doing the same thing the whole life)". The Match Values theme was coded when participants expressed their family's desire to see them in a career or occupation that was in line with the family's values. Education was when participants indicated they could choose their career, as long as they had some level of education.

In contrast, Unconditional Freedom was characterized by participants' description of their family's lack of expectations. Unconditional freedom was broken down into the following subthemes: Career Passion, and Personal Happiness. For participants expressing Career Passion, they indicated they had freedom to choose whatever career they felt most passionate about, such as this participant: "whatever makes me [the] most interested and passionate about". In Personal Happiness, participants described their family's support to pursue whatever career made them happy. One participant described it in this way, where their family "[...] actually [doesn't] mind as long as I'm happy with my decision".

The second major theme was Family Expectations, where participants described their family's career expectations for them. This was further differentiated between Specific/Named

Careers, and General Expectations. The General Expectations theme was coded differently than Conditional Freedom in the first theme, as the expectations found here were more concrete, specific, and narrowed participants' career choices considerably compared to the conditions named in the Freedom to Choose theme. With the Specific/Named Careers subtheme, participants described specific careers they perceived their family expected them to pursue, including doctor, lawyer, and accountant. For students expressing General Expectations, themes of Educational Expectations (e.g. "a professional job with certification and/or diploma), Job Characteristics (e.g. "something high paying", "high profile"), and Gendered Expectations (e.g. "pink collar job") were noted.

In terms of the frequency of participants' responses for the two main themes, the tabulated results can be found in Table 10. It is important to note that for the majority of participants, there was more than one theme present in their responses, and these complex responses were coded as such. Some students indicated their freedom to choose and their family's expectations in the same answer, and were double-coded as both (e.g., "Something that makes me happy OR trades"). Selections of participants' responses can be found in Appendix D.

Table 10

*Frequency of Main Theme Responses*

		Freedom to Choose	Family Expectations
Student Status	Domestic	42	15
	International	10	11
Birth Country	Canadian-Born	40	6
	Foreign-Born	12	20
Gender	Male	18	11
	Female	34	15
Missing Responses		3	3

*Note.* The values in the table indicate the number of participants who fit within each theme, categorized by student status, birth country, and gender.



One final analysis conducted was examining participants' career aspirations in relation to their perceptions of their family's expectations. Only participants who expressed a specific family expectation were included in this analysis, as students who expressed their family's blessing to choose their own career would automatically be a match. For students who expressed their family had specific expectations for their career, 10 were a match between their career aspiration and their family's expectations, and 10 were a mismatch. Of the students who matched their family's career expectations, the majority were domestic students; students reporting a mismatch with their family's expectations were generally foreign-born students, and women. See Table 11 for a further breakdown of these frequencies.

Table 11

*Frequency of Aspiration-Expectation Match and Mismatch*

		Match	Mismatch
Student Status	Domestic	7	4
	International	3	6
Birth Country	Canadian-Born	5	0
	Foreign-Born	5	10
Gender	Male	5	2
	Female	5	8
Missing Responses		3	3

*Note.* The values in the table indicate the number of participants who were a match or a mismatch, categorized by student status, birth country, and gender.

### Summary

Chapter Four focused on the specific details of the analyses conducted as part of the current study. The discussion in this chapter outlined the demographic information of the individuals who participated, outlined the results of the bivariate correlations examining the relationships between family influence, cultural influence, career decision making-self-efficacy, and gender and student status, and examined the impact of gender and student status (and birth

country) on career decision-making self-efficacy and family influence. Results showed that student status and country of birth have an influence on career decision-making self efficacy for this sample, but that there were no significant effects of gender or student status on family influence. Additionally, students' responses to the short answer questions on family expectations and their own career aspirations were examined for salient themes, indicating that students felt they had the freedom to choose, were constrained by their family's expectations, or in some cases felt the pressures of both. The discussion in Chapter Five will expand on the results of this chapter, and relate them back to the existing literature.

## **CHAPTER 5: DISCUSSION**

*“You don't have to be a person of influence to be influential. In fact, the most influential people in my life are probably not even aware of the things they've taught me.”*

*– Scott Adams*

Chapter Four provided an overview of the procedures and data analyses for the current study, including qualitative analysis of students' career choice, and an examination of the relationships between family influence, cultural influence, career decision-making self-efficacy, gender, student status, and birth country. In Chapter Five, the discussion will focus on the results of the study in reference to current literature in the field of career development. The discussion of the results will be organized according to the main research questions. Implications of the results for career counselling and university administration will be discussed. Next, the strengths and limitations of the study will be reviewed, with a particular focus on the next steps for future research in this area. Chapter Five will conclude with the researcher's personal reflections on the current study, and overall conclusions.

### **General Observations**

The first section of Chapter Five will provide an outline of the general observations of participant demographics. Next, demographic information will be compared with previous studies examining family influence, cultural influence, and university students (including international students). This background information will provide a context from which to review the results in relation to the research questions used in this study and previous research. Descriptive statistics for the assessment tools, and observations of the key factors in the study will also be discussed.

## **Comparison and Contrast of Participant Characteristics to Previous Studies**

The current study aimed to examine the impact of family and cultural influence on career decision-making self-efficacy in domestic students and international students. Therefore, it is important to review participants' characteristics in comparison to previous research with these populations. Firstly, it appears that the majority of students identified as coming from a white or Caucasian background, particularly domestic students. Less than half identified as a different ethnic background, though the majority of these students were international students. Despite Canada being recognized and celebrated as a multicultural society, there were few domestic student participants that were from an ethnic background outside of the predominant white or Caucasian majority. Of those participants who were from a different ethnic background, the ethnic identity reported most often was Chinese. This lack of diversity is somewhat surprising, given Canada's multicultural heritage and diverse ethnic makeup, but is in line with previous research where there is a larger sample of white or Caucasian students (Berríos-Allison, 2005; Li & Kerpelman, 2007; Mets, Fouad, & Ihle-Helledy, 2009).

One reason for this finding could be that the majority of previous career development research with university students has been conducted in the United States (Constantine & Flores, 2006; Jachowicz, 2007; Melendez & Melendez, 2010; Reynolds & Constantine, 2007; Shen & Herr, 2004; Singaravelu, 1998; Singaravelu et al., 2005) with some in Australia and other Western countries (Hughes, 2011; Singer, 1993). A large portion of the research on cultural influence on career choice has focused on differences between individualistic cultures (like the United States) and more collectivist cultures (such as China, South Korea, or Vietnam; Hughes, 2011; Leong, Kao, & Lee, 2004; Mau, 2000; Shin & Kelly, 2013). Some studies separate international students into Asian International and Non-Asian International student groups (Singaravelu, 1998; Singaravelu et al., 2005), or focus exclusively on students from Asian ethnic

backgrounds (Fouad et al., 2008; Singer, 1993). Although other studies focus on differences in collectivist and individualistic cultural values specifically, this study aimed to examine domestic students and international students on both dimensions of cultural values, and challenge the stereotype that international students are more collectivist than domestic students.

This is an important distinction, as collectivism and individualism exist not only between cultures but within them, and individuals in the same cultural context can be very different on each of these dimensions despite shared cultural environment (Hughes, 2011; Shulruf et al., 2011). Moreover, it acknowledges that international students, while sharing a common background by coming to study in a new cultural context, are not a homogeneous group and have different cultural values and backgrounds. Categorizing all international students as collectivist constitutes a huge disservice to these students and their unique academic and career needs.

Previous research on career choice in university students has noted some gender differences between men and women, particularly in regards to family influence (Chhin et al., 2008; Freie, 2010; Li & Kerpelman, 2007; Ryan, Solberg, & Brown, 1996). In terms of gender, more than half the sample participants were women, with only 40.3% of participants identifying as male. However, this is in line with other studies in the career development literature on university students and the increasing trend of more women enrolling in and attending post-secondary institutions than men (Ferguson & Wang, 2014).

Age was specifically limited to a particular age bracket, as 18-25 years old is the average age range that individuals begin attending post-secondary; as such the age demographic profile is consistent with previous research (Whiston & Keller, 2004).

In regards to student status, more than half of the sample was comprised of domestic students, despite researcher attempts to recruit a more balanced sample (e.g. recruiting through the CISSA office for more international student participants). There are several possible reasons

for this noted discrepancy. Firstly, the ratio of domestic students to international students at the University of Calgary is approximately nine to one (approximately 28,200 domestic students compared to approximately 3,300 international students; University of Calgary, 2015a, 2015b). The international student group is smaller, and thus poses a challenge in finding enough interested participants. Secondly, international students often face additional stresses and pressures that their domestic student peers do not, including acculturative shock, obligations to family and friends back home, and work/visa applications (Arthur & Flynn, 2011; Reynolds & Constantine, 2007). International students may not have had the extra time, or felt uncomfortable participating due to these extra stressors. In the current sample, the ratio of domestic students to international students is closer to 3:1, which is a smaller ratio than the actual University of Calgary student populations.

### **Comparison and Contrast of Contextual Factors to Previous Studies**

Participants were from a relatively diverse number of academic majors, as seen in the results section. The most common majors were within the Arts, Science, and Education Faculties, and this finding is somewhat similar to other research studies, when their academic majors have been noted (Garcia et al., 2012; Mets et al., 2009; Shen & Herr, 2004). Differences in students' academic majors compared to previous research can be attributed to this study's convenience sampling method, though efforts were made to recruit participants from several different classes (i.e. sociology, statistics, geosciences, English, pre-service education).

Year of study ranged from first year students to fifth year students, but the majority were in their first year of study. This is consistent with previous research, with younger and first year students comprising the bulk of the sample (Constantine & Flores, 2006; Duffy & Klingaman, 2009; Hargrove et al., 2002; Li & Kerpelman, 2007; Reynolds & Constantine, 2007). A likely

reason for this finding is that the classes the researcher was invited to present in tended to be introductory courses, and as such would have a higher number of first year students.

Students reported a number of countries of origin, from all parts of the world. Though the majority identified Canada as their country of origin, students also identified South America, Africa, Europe, Asia, and the Middle East as their home continents, each with their own unique cultural background, history, and values. This is both similar and different from previous research: studies investigating international student career development either focus on international students in a more general sense and therefore includes international students from diverse backgrounds (Arthur & Flynn, 2011; Jachowicz, 2007; Reynolds & Constantine, 2007; Shen & Herr, 2004), or international students from a specific country or cultural background (Hughes, 2011; Singer, 1993). The demographic information of international students in the current study also fits with enrollment trends observed throughout Canada – Canada is the 7th most popular destination country for international students, and China is one of the top countries Canada accepts international students from (Canadian Bureau for International Education [CBIE], 2015).

In general, it can be seen that the participants in the current study are a similar profile to previous research with post-secondary students, and to the observed trends in higher education institutions and international student enrollment (CBIE, 2015; Ferguson & Wang, 2014). More specifically, key countries of origin have representation in regards to international student enrollment in Canada (though in smaller numbers than what might be seen at a larger institution), and students are within the typical undergraduate age range and gender distribution of post-secondary institutions in Canada. There are some notable differences, with higher representation of certain disciplines (e.g. education, geosciences), and more students identifying as white or Caucasian compared to Canada's multicultural background.

## **Key Factor Observations**

The sections above examined the similarities and differences in participants' demographic information in the current study compared to previous research. This section will explore participants' scores on the assessment instruments compared to previous norms reported for each of the assessments.

Students' career decision-making self-efficacy in the current study on average reported moderate career decision-making self-efficacy, indicating that students generally felt confident in their ability to successfully complete career-related tasks and make occupational decisions. Compared to the normed samples, students in the current study had similar career decision-making self-efficacy ( $M = 3.8$  and  $M = 3.9$ , respectively; Betz & Taylor, 2012).

In the current study, there was no statistical significance between men and women in regards to family influence or career decision-making self-efficacy. For career decision-making self-efficacy, the scale used (Career Decision-Making Self-Efficacy Scale – Short Form) tends to find gender homogeneity – that is, men and women do not differ significantly in terms of their confidence to successfully complete career decision-making tasks and have similarly high self-efficacy (Betz & Taylor, 2012). Research in this area has no clear consensus, with some researchers finding no gender differences (Hargrove et al., 2002; Nawaz & Gilani, 2011; Singaravelu et al., 2005), and other researchers reporting gender differences (Giankos, 2001).

For ethnicity, there were not enough students in each identified ethnic group to conduct a meaningful analysis. As such, differences between ethnic groups on career decision-making self-efficacy and family influences cannot be examined in regards to the previous literature. It should be noted that previous research has found differences between ethnic groups in terms of career decision-making self-efficacy (Betz & Taylor, 2012) and family influence (Fouad, Kim, Ghosh, Chang, & Figueiredo, 2015). This is certainly an area for future research.



In terms of family influence, students in the current study overall reported an average score of 3.07, indicating moderate family influence on career decisions. Given that the Family Influence Scale is relatively new, it does not have an administration manual such as a more established assessment like the Career Decision-Making Self-Efficacy Scale. However, the calculated mean score from the original scale development article was 3.51 (based on 22 items; Fouad et al., 2010). A more recent study of the Family Influence Scale testing its validity with participants from the United States and India used the 20 item scale found in the current study, and reported mean family influence scores for the US sample ( $M = 2.70$ ) and India sample ( $M = 3.65$ ; Fouad et al., 2015). Students in the current sample expressed lower family influence than the India sample, lower than the original normed sample, but higher than the US sample. This is not a surprising finding, given that Canada, in general, is seen as more collectivist in its cultural values and behaviours than the United States (Hofstede, 1991), and would therefore be more likely to express higher levels of family influence. In contrast, Canada is considered less collectivist than India in its cultural values and behaviours (Hofstede, 1991), and would thus be expected to show lower family influence scores. Moreover, students in the current study were from a variety of cultural and ethnic backgrounds, and their cultural influence may not be reflected in a single score (Hofstede, 1991).

And finally, students in the current sample expressed moderately high levels of individualism, and moderately high levels of collectivism ( $M = 4.37$  and  $M = 3.84$ , respectively). There were no significant correlations between individualism, collectivism, or student status for the current study. However, international students in the current study were not limited to one particular country or geographical area; different countries have their own unique cultural backgrounds, norms, and values, which could be reflected in the score here, as students were not grouped by country for separate analyses.

## **Research Questions**

The previous section discussed the descriptive statistics, and compared and contrasted participant demographic information with previous research. In the current section, discussion will focus on the results from the statistical analyses and the thematic analysis. More specifically, the section will be organized according to the research questions, and compare the findings in this study with previous studies in regards to family influence and career decision-making self-efficacy. Novel information from the current study will be highlighted, and possible explanations for the findings will be presented.

### **Research Question #1: Relationships Between Social Influences and Background Variables**

The first research question was as follows: “How do the factors of family influence and cultural influence relate to career decision-making self-efficacy in international and domestic students?” To investigate this, analyses of the links between student status (international or domestic), and scale measures of family influence, cultural influence, and career decision-making self-efficacy were conducted. Other background variables were included in the analysis, specifically gender and birth country (Canadian-born or foreign-born). The analyses revealed several important correlations, particularly in regards to career decision-making self-efficacy. There was a significant positive correlation between individualistic cultural behaviours and student status, and significant negative correlations between career decision-making self-efficacy and birth country. In plainer terms, students who expressed higher confidence in their career-decision making were more likely to express individualistic cultural influence, and more likely to be a domestic student or Canadian-born. Given that this relationship was examined further through the one-way ANOVA analyses, a more in-depth discussion of the possible reasons for this finding is presented.

The other factors that were found to have a significant correlation were family influence and collectivistic cultural behaviours. For participants in the current study, students who were more collectivist were more likely to report a stronger family influence. This is consistent with previous findings, as students who are more collectivist in their cultural values are more likely to place greater emphasis on family opinions, and family wishes in regards to their career choice (Fouad et al., 2008). However, despite this finding no significant correlation was found for student status and family influence; international students and domestic students were roughly equal on individualism and collectivism scores. One reason for this finding is the heterogeneity of the international student sample. International students came from varied cultural backgrounds, and as such would not all hold the same cultural values, and not follow family's advice or influence to the same degree. Similarly, Canada is a diverse and multicultural society that is seen as more collectivist than the United States, where a majority of the research literature in this area is conducted.

### **Research Question #2 & #3: Gender and Student Status on Family Influence and CDMSE**

As there has been evidence from previous studies on the impact of gender and student status on family influence and career decision-making self-efficacy, the study aimed to determine the nature of the relationships between these factors. Investigation of these relationships was needed to better understand the influences and struggles that students might face in making career choices, with particular implications for international students. With this in mind, the second and third research questions were: "Does career decision-making self-efficacy differ by student status (international or domestic) and gender?", and "How does family influence differ by student status (international or domestic) and gender?"

It was found that international students in general had lower career self-efficacy than domestic students, and that this was statistically significant. One reason for this finding could be

that international students who have decided to return to their home country upon graduation express lower career self-efficacy and outcome expectations for their career in the host country (Singer, 1993). International students in the current study may be expressing lower career decision-making self-efficacy in this context because their career self-efficacy for returning to their home country is higher. Another explanation may be that international students in the current study are experiencing acculturative stress; many of the international students in the current study reported being in Canada for a year or less, and they may still be in an adjustment period. Previous research has found that international students who are experiencing acculturative stress express lower career aspirations, as the stress they are experiencing is preventing them from focusing on their career development (Reynolds & Constantine, 2007). Acculturative stress and self-critical perfectionism have been found to be linked to depression in some international students (Rice, Choi, Zhang, Morero, & Anderson, 2012), which would also contribute to lower self-efficacy scores, as mood states are an influencing factor in career decisions according to SCCT (Swanson & Fouad, 2010).

Another reason for this finding might be the very different challenges international students face compared to their domestic student peers. International students have an added layer of complexity in their career decision-making, as choices they make in the context of the new host culture can have significant impacts not only in the host country, but in their home country as well (Arthur & Flynn, 2011). Previous research has found that international students have to navigate language barriers, cultural barriers, and sometimes family barriers to pursue their career aspirations and find employment within their chosen field (Arthur & Flynn, 2011; Shen & Herr, 2004). Many express frustration, anxiety, and confusion around finding and maintaining meaningful employment, and feel a lack of confidence in certain career tasks (Arthur & Flynn, 2011; Jachowicz, 2007). Finding a meaningful occupation is a stressful endeavor for the

majority of students, without the added complexity of being an international student. This lower career self-confidence could be due to the unfamiliarity and uncertainty of Canada's workforce and cultural context, which could vary significantly from what they are used to in their home country. According to Social Cognitive Career Theory (SCCT), career decision-making self-efficacy is context dependent, and is based on past experience and observation of others (Lent et al., 1994). Given that many of the international students in the current sample had been in Canada for one year or less, they may have little to no past experience making career decisions in the new cultural context, to base their decisions on. Moreover, students may have observed their international student peers making decisions and attempting career tasks with poor results, which would also lower self-efficacy (Lent et al., 1994).

In terms of gender, no significant differences were found between men and women on career decision-making self-efficacy. This is in line with the scale psychometrics themselves (Betz & Taylor, 2012), which also found no significant differences in how confident men and women were when making career decisions. As discussed earlier in the chapter, research findings in this regard have been mixed. One reason for a lack of gender differences can be explained from the perspective advanced by SCCT. Although gender is a contextual background variable that can impact individuals' career self-efficacy, there are other influencing factors that shape self-efficacy including previous performance and observation of others (Lent et al., 1994). It could be that men and women in the current study feel equally self-efficacious and confident making career decisions because they have already successfully made choices about what kind of job or academic major they would pursue, leading them to believe that they would be similarly successful in the future. Part of their self-efficacy could also stem from watching their peers or family members navigate various career tasks (e.g. university applications, job interviews, etc.) and reasonably expect that they would be able to achieve similar success.

Examining family influence and student status, there were no significant differences found between international students and domestic students. This is a surprising finding, considering the existing literature on family influence and international students (Arthur & Flynn, 2011; Jachowicz, 2007; Singaravelu et al., 2005). However, much of the current literature on family influences and international students emphasizes international students from more collectivist countries (Singaravelu et al., 2005; Singer, 1993). Moreover, with the increasing trends of internationalization and globalization, there is an increasing trend towards Westernization and more individualistic attitudes and behaviours. As such, international students may hold more individualistic values as a result. Additionally, previous research has found differences between ethnic groups in terms of university choice (Ivy, 2010). Overall, students' career aspirations were found to be the most influential, but secondary influences were varied, with family being the most important influence for Pakistani and African students, and achievement and academic factors being the most important for Indian and 'other' Asian students (Ivy, 2010).

Gender differences in family influence were also examined. It was found that there were no significant differences between men and women in terms of family influence. This is somewhat surprising given the additional family pressures that women often face in their career development (Chhin et al., 2008; Li & Kerpelman, 2007; Ryan et al., 1996). However, it could also be that men and women in the current study equally felt supported by their families. There is empirical evidence that self-efficacy is higher when families (and parents in particular) are supportive and open (Hargrove et al., 2002), and respect their children's autonomy and independence (Garcia et al., 2012). Social Cognitive Theory points to encouragement from significant others (including family and parents) as strong motivators for career development and career choice (Swanson & Fouad, 2010). Students in the current sample may have support and

encouragement from their parents to make their own career choices regardless of gender, which would account for the current finding.

#### **Research Question #4: Career Choice Themes**

Examinations of the relationships between factors were part of the current study, but the scale measures did not allow participants to detail their career choice and family influence in a more explicit way. Therefore, the fourth research question was intended to explore those relationships in greater depth as follows: “Do students choose their career based on their own aspirations, or based on what they perceive their family expects them to pursue?”

First, students’ reported career aspirations were compared against their current major. The vast majority of students expressed a match between the career they hoped to have in the future, and their current major of study. This is not surprising when examined through an SCCT lens: in the current study, students reported having moderate career decision-making self-efficacy, and self-efficacy in combination with outcome expectations (what the individual reasonably expects will happen) predict interests (Lent et al., 1994). Therefore, students’ self-confidence and belief in their ability to be successful in a given area predict that they will likely express interest in that area, and are more likely to develop skills and set goals in line with these interests (Lent et al., 1994). In the context of the current study, students’ self-confidence in their abilities led them to pursue an academic major in line with their abilities and interests.

Second, students’ career aspirations were compared to reported career of their family. Responses were also analyzed to determine which family members were mentioned most often. It was found that fathers (N = 30), and mothers (N = 29) were the most frequently named family members, outside of general or unspecified family members. This is consistent with previous research, that finds mothers, fathers, and parents in general are the most commonly identified family in family influence studies (Schultheiss et al., 2001; Whiston & Keller, 2004). Sisters (N =

5) and brothers ( $N = 4$ ) were also mentioned, which supports previous research that siblings are influential as well (Schultheiss et al., 2002). Although the majority of participants ( $N = 41$ ) simply listed occupations instead of identifying specific family members, the number of occupations listed by any one participant (anywhere from two to six occupations) could be an indication of how far the family influence extends. For participants listing one or two occupations, it can reasonably be assumed that the occupations listed are occupations held by their parents; students listing three or more could be including other family, including siblings, step-parents, or other extended family (e.g. aunts, uncles, cousins, grandparents, etc.).

In examining students' career aspirations and their family's careers, some students were an exact match to a family member's career, or in the same career type area. This can also be explained by SCCT, whereby observation of significant others is an influencing factor on career self-efficacy and subsequent career behaviour (Lent et al., 1994). It could be that students matching their family's current occupation observed positive career behaviours and outcomes, and as a result developed self-efficacy beliefs and interests in a similar area based on what they observed in their family unit. It should be noted, however, that the majority of students did not display a match between their career and the reported career of their family. Further investigation of this finding and its potential meaning are discussed below.

Third, to add an additional richness of understanding, open-ended questions probing participants' career choice were included in the study and analyzed for salient themes. Overall, it was overwhelmingly found that students had the freedom to choose their career based on their own aspirations, and not what they perceived as their family's expectations. Framed a different way, many of the students expected their parents would be supportive of their career pursuit, as long as it was a career the student would be happy with. Although there were themes of conditions to this choice (e.g. something financially stable, a job with certain characteristics,



etc.), the career choice was ultimately left up to the student to decide. This is supported by previous research, where students ultimately feel that they are the primary influence in deciding their career (Yazici & Yazici, 2010), and it is not the exact match between a student's aspirations and their parents' expectations, but rather congruence between parent-child career values that predicts students' career self-efficacy (Sawitri et al., 2014).

There were some marked exceptions, however. There were some students who indicated their families had career expectations for them, ranging from more general expectations (e.g. high paying, high status), to very specific or named careers (e.g. doctor, lawyer, etc.). Although there were fewer students indicating their family had expectations for them compared to the freedom to choose group, it is still a significant and important finding. Students who perceive pressure from their families face additional problems their peers may not; as discussed in an earlier chapter, families that are more controlling and have unrealistic expectations may result in a premature career choice (Whiston, 1996), and increased anxiety (Larson & Wilson, 1998). Furthermore, a lack of family support can lead to an increased risk of the student dropping out of school altogether (Hunt et al., 2012).

When the themes of Freedom to Choose and Family Expectations were analyzed according to student status and gender, an additional layer of meaning was found. The majority of students in the current study indicating they had the support of their families to choose their own career were domestic students ( $N = 42$ , or 75.0% of domestic students; compared to international students,  $N = 10$ , or 47.6% of international students) and women ( $N = 36$ , or 78.3% of women; compared to men,  $N = 18$ , or 58.1% of men). This is an interesting finding, considering the research evidence that points to the additional pressures that women often face in their career decision-making, as discussed in previous sections. One reason for this observed result could be the cultural context these women are in – Canada, while more collectivistic than the United

States, is still consider an individualistic, Westernized country, and more emphasis is placed on individual autonomy and making one's own decisions. This could account for the finding that domestic students reported their freedom to choose their own career.

Another reason for the finding could be the students in this study, regardless of student status or gender, have high perceived levels of familial support, known in SCCT as one of the contextual affordances (Swanson & Fouad, 2010). Contextual affordances are background variables, such as barriers and support, that facilitate or hinder self-efficacy and career choices – affordances that are chronologically distant from an individual's career choice are described as distal, whereas affordances closer in time to the individual's choice are described as proximal (Swanson & Fouad, 2010). Of interest to this study is students' perception of their familial support, which is classified as a distal contextual affordance – students in the current study perceived high support from their family for their chosen career aspiration, which in turn positively influenced their self-efficacy beliefs. Thus the students have confidence in their career decision-making, and are able to make the choices necessary to pursue their career because they feel their family is supportive of their aspirations.

For the theme of Family Expectations, there was some differences in the reporting by domestic students (N = 15, or 26.8% of domestic students) and international students (N = 11, or 52.4% of international students), but significantly more foreign-born students indicated their family had career expectations for them (N = 20, or 66.7% of foreign-born students) compared to Canadian-born students (N = 6, or 12.8% of Canadian-born students). Some differences in gender were also found, where men (N = 11, or 35.5%) reported family expectations more than women did (N = 15, or 32.6%). It could be that foreign-born students, regardless of whether they were domestic students or international students are experiencing cultural and family influence in combination, as family values and expectations are often influenced by the predominant values

and norms of their culture (Hou & Leung, 2011; Singaravelu et al., 2005). For foreign-born domestic students, it could be that the degree to which their family has acculturated and adopted the new cultures' values is an influencing factor on their family's career expectations. Further, the degree to which foreign-born domestic students are acculturated could be influencing how closely they ascribe to their family's expectations.

The finding that men reported more family expectations for their career than women did (accounting for the differences in group sizes) is a surprising finding. Much of the existing literature has examined the pressures women experience in their career development, but less attention has been paid to men in the same regard. It could be that the men in the current study are from families with traditional gender role expectations and socialization, and as such are expected to enter particular professions as a result of this socialization (Chhin et al., 2008). Previous research has found that young men whose families held traditional gender role expectations expressed lower self-efficacy for 'female-typed' careers (e.g. teaching, nursing, and other 'traditionally feminine' occupations), which could be present in the current study's findings (Chhin et al., 2008). However, it is important to note that women almost equally expressed family expectations for them, which is reflected in the other areas of the research where gender differences were not found. It is also difficult to say if domestic student men and women perceive family expectations to the same extent as international student men and women, given the unequal numbers in these groups. This is an area for future research.

**Career match and mismatch.** A total of 20 participants who indicated a specific career expectation from their family were used to compare their personal career aspirations. Ten students had a match between their career aspirations and their family's career expectations, while 10 were a mismatch. Of the students whose career expectations matched, seven were domestic students, three were international students, and gender comparisons showed an equal

balance (i.e., five men and five women). For students who were a mismatch, four were domestic students, six were international students, eight were women, and two were men. This finding could be accounted for due to the unequal sample sizes, as more women volunteered to participant than men. It could also be that women perceive family expectations differently, which may be tied into gender role expectations – of the participants who indicated their family had gendered expectations of what career they should pursue, all were women. A similar finding has been documented in previous research, where women often experience gendered career expectations from their family (Chhin et al., 2008; Hou & Leung, 2011).

Examining aspiration and expectation mismatches more closely, 10 were foreign-born students. Despite the lack of statistical significance for student status and family influence, it appears that there were some students who followed their family's career expectations for them, possibly in part due to observing family career behaviours (Whiston & Keller, 2004). There also appears to be an influencing factor of culture as well, where foreign-born students and international students more often expressed a mismatch between their aspirations and their family's expectations. For the group with mismatched family/personal expectations, it is important to note that students' current career pursuit was going against their family's expectations, indicating while there is a family influence present, the student is choosing their aspirations over their family's expectations. This is an important finding, as it challenges the stereotype that international students are more likely to choose their family's career expectations over their own career aspirations.

## **Summary**

The results of the current study suggest that international students and domestic students (as well as foreign-born students and Canadian-born students) differ significantly from each other in terms of career decision-making self-efficacy. Students who were Canadian-born and had

domestic student status were more confident in their career decision-making than international students or foreign-born students. Despite previous research finding that gender, family influence, and cultural influence are significant factors in career choice, none of these factors were found to be statistically significant. However, there was evidence of family influence and cultural influence in the predominant themes found in the match (or mismatch) between participants' career aspirations and family career expectations. While the majority of students indicated their family supported their career choices, students who reported that their family had expectations for their career choices were more likely to be foreign-born students. Moreover, foreign-born students were also more likely to indicate a mismatch between their current occupational pursuit and their family's expectations. These findings indicate that while family influence is present and appears to reflect cultural values, the students in the current study were ultimately the ones to decide which career they felt was best for them.

### **Strengths and Limitations**

With the presentation of the current study's findings, it is important to recognize the ways in which the goals of the study were achieved, and what areas should be interpreted with caution. This section will present the strengths of the current study, including the inclusion of international students and domestic students, research design, and the assessment measures used. Limitations of the research will also be presented, including factors related to sampling. Acknowledgement of the strengths and limitations will aid in an appreciation of which findings can be generalized to domestic students, international students, and undergraduate students.

#### **Strengths**

There are a few key strengths of the current study that should be noted in order to appreciate the significance of the findings. First, the current study adds additional information on the presence of family and cultural influences that impact university students' career decision-

making, for both international students and domestic students. Moreover, the current study was open to undergraduate international students, regardless of country of origin. This is a strength, as previous research has primarily focused on international students from particular countries or regions (Reynolds & Constantine, 2007; Singer, 1993), or excluded domestic students in their research (Jachowicz, 2007; Reynolds & Constantine, 2007; Singer, 1993). Including international students from various countries, as well as domestic students, provides a more complete and holistic view of the differences that exist between these groups.

The results of the research also challenges the stereotype that international students are naturally more collectivist and adhering to family expectations over their own career aspirations. This is particularly important, as international students are a diverse group from various countries, and are increasingly attending post-secondary institutions in Canada as part of their career pursuits (CIC, 2013a). The top five source countries are China, India, Korea, Saudi Arabia, and France, comprising approximately 60% of the total enrollment of international students at Canadian higher education institutions (CBIE, 2015). Expecting that all students from these different countries to experience the same level of cultural influence and have the same career development experiences does these students a huge disservice and ignores their unique career needs.

A second strength of the study is that it used a mixed-methods approach, including quantifiable statistical analyses and rich qualitative analyses. The strength of statistical procedures such as the ANOVA is that larger numbers of participants allow for overall trends and relationships between groups to be examined (Ray, 2006). Qualitative methods allow for participants' experiences to be explored in greater richness and depth that cannot be found in quantitative data (Ray, 2006). Used together, the current study was able to determine the relationships between and differences between groups, while allowing participants' experiences

and perceptions in their career choice to be highlighted. This constitutes a more holistic perspective than using just one approach over the other.

A third strength pertains to the assessment measures used in the current study. Three measures in total were used: a well-established measure of career decision-making self-efficacy, and two new and innovative measures on family influence and cultural influence. The Career Decision-Making Self-Efficacy Scale (CDMSE) has been well-researched (Chung, 2002; Creed et al., 2002; Gaudron, 2011; Jin et al., 2012). For the current study, the Career Decision-Making Self-Efficacy Scale – Short Form (CDMSE – SF) was found have good reliability (25 items;  $\alpha = .894$ ). The Family Influence Scale (FIS; 20 items;  $\alpha = .793$ ) and Auckland Individualism-Collectivism Scale (AICS; 26 items;  $\alpha = .711$ ) were also found to have acceptable reliability. For the CDMSE – SF, this lends additional support to its psychometric properties; for the FIS and AICS this study provides positive empirical support for their reliability as assessment instruments.

A fourth strength of the current study is the examination of both family influence and cultural influence, as neither exists within a vacuum. Previous research has examined family influences or cultural influences on career development, but less frequently have both been examined explicitly. Family expectations and values are often unconsciously influenced by the cultural context they develop in, and are often a reflection of that culture's values and norms (Hou & Leung, 2011; Singaravelu et al., 2005). Examining both influences provides a more complete picture of the influences students face in their career development, and how these influences shape their career decision-making and occupational choices. According to SCCT, the environment individuals grow up in and the environment they make career decisions in both influence career decision-making self-efficacy and subsequent career choice – given the context specificity of self-efficacy (Swanson & Fouad, 2010), this has additional implications for

international students. Their career decision-making self-efficacy in the context of their home country is likely different than their career decision-making self-efficacy in the context of the host country (Singer, 1993). As such, considering these factors together allows for a more complete and holistic depiction of their career choice experiences.

## **Limitations**

Although the current study had numerous strengths, it is important to recognize the areas that could be improved upon in future research, and appreciate the extent to which the findings can be generalized. One limitation was the study's unequal sample sizes, particularly in the comparison between international students and domestic students. There were enough students to run the analyses and be confident in its findings, but more students and more balanced groups could provide enough power to examine if there are differences in career decision-making self-efficacy and family influence on other dimensions, such as ethnicity, country of origin, and academic major. It was also noted that despite Canada being a multicultural nation, the majority of domestic students in the current sample identified as white or Caucasian. This may limit the generalizability of the findings for students who are from non-dominant ethnic groups, as previous research has found that students from the cultural majority do not face the same career decision-making pressures as experienced by students from non-dominant cultural groups (Arthur & Flynn, 2011; Reynolds & Constantine, 2007).

A second limitation is the location of the current study. Only students at the University of Calgary were included, so its generalizability to other institutions may be limited. There could be a qualitative difference in the kinds of students who choose to attend University of Calgary compared to other post-secondary institutions. Additionally, the Canadian cultural context is different from previous research, and could potentially impact the generalizability of the results to other countries. As previously mentioned, the majority of research on university students is



conducted in the United States, which poses a challenge in linking the current study and its Canadian context to the more individualistic cultural context of the United States.

A third limitation of the current study is that factors that were thought to be influential on university students' career choice and decision-making self-efficacy (i.e. family influence and cultural influence), were not statistically significant. This is despite significant differences between international students and domestic students in terms of career decision-making self-efficacy, and differences in career aspiration and expectation matches between international students and domestic students. This suggests that there is potentially some other factor underlying this difference, and further research is needed in this area.

### **Research Implications**

With the explanation of the results, strengths, and limitations of the current study in previous sections, the current section will focus on how these findings apply to real world scenarios. More specifically, this section will discuss the potential implications of the current study for career counsellors and career practitioners in university settings, and university administrators. It will also incorporate previous research that has offered similar implications or suggestions for practice.

#### **Counselling and Career Development Practitioners**

For counsellors and career development practitioners, particularly those in university settings, there are several important implications. First, the current study found that international students express lower career decision-making self-efficacy compared to their domestic student peers. This is significant, as it points to the unique needs of international students in terms of career decision-making. Self-efficacy is context-dependent, and international students have moved from a familiar context (i.e. their home country) to a new context (i.e. the host country).

International students may be feeling less self-confident in their career decisions in this new cultural context, and would benefit from the support of a career counsellor or career practitioner.

Unfortunately, university career counselling services have typically been underused by international students (Singaravelu et al., 2005). In one study as many as 64% of the international students indicated a need for career counselling services, but reported not seeking help from the university career counselling centre (Singaravelu et al., 2005). However, there are many international students who do not access career services due to lack of knowledge about career services, misunderstanding of the services offered (e.g. thinking they are only for domestic students, or students intending to stay in the host country), or a mismatch between their needs and what career practitioners are offering (Shen & Herr, 2004). Instead of university career services, many students seek help from their peers or professors within their discipline, finding better support and links to jobs and career supports over what they perceive or have experienced with university career counsellors (Arthur & Flynn, 2011; Shen & Herr, 2004). With the knowledge from this study, career practitioners can be better equipped to help international students navigate the new cultural context and create targeted interventions to boost career decision-making self-efficacy.

The thematic analysis uncovered themes of family expectations in regards to students' career choices, which also has important implications for career counsellors. When possible, counsellors can provide psychoeducation to parents (and other family members) regarding their role in supporting their children's career development (Whiston & Keller, 2004). Family members may not be aware of how they may be influencing their children's career development, and awareness of how to best support their children could help these students navigate their career choice with more confidence. A more practical application of this finding that does not require family to be involved could be counsellors' exploration with students around perceived

family expectations, identifying significant family members, and exploring family career influence on their career decision-making. One way this could be achieved is through career genograms, where counsellors work with students to create a family tree or genogram, and add family members occupations and educational attainment to further identify what family members are a significant influence (either positively or negatively; Chope, 2005). This can also help students identify influences they might not have been aware of (Chope, 2005), and the counsellor can help them navigate between their career aspirations, and what their family expects from them.

Finally, the results show the majority of students perceive they have their family's support to choose the career that is best for them. However, for some students the freedom to choose with no additional guidance can be more daunting than specific family expectations. Previous research has found that university students who have not fully engaged in career exploration progress through their career development by complying with parental expectations (Sankey & Young, 1996). For students who do not have family career expectations, this lack of direction may increase career indecision and anxiety. Career practitioners may need to help these students engage in additional exploration around how their interests and past activities are linked to present and future goals, in order to help them identify what career they would like to pursue.

### **University Administrators**

For university administrators, the current study highlights the need for additional services to support international student career development. International students are an important part of higher education institutions – they constitute 8% of the university population across Canada, and contribute to the overall economic growth of the university and the country as a whole (CBIE, 2015). As such, a focus on their retention and positive learning experiences while in Canada is crucial.

The finding that international students express lower career decision-making self-efficacy than domestic students is important, as it underscores the need for specifically tailored services for international student career services. As previously discussed, international students typically underuse university career services (Shen & Herr, 2004). University leaders could hire additional career services staff who are knowledgeable about international students and their unique career needs, including acculturative stress, language concerns, and career choice concerns (Arthur & Flynn, 2011; Shen & Herr, 2004). Specific workshops could be developed and advertised specifically for international students around these areas. Alternatively, career services for international students could be provided and emphasized at the beginning of their period of study to better support these students as they learn and work in the Canadian context.

### **Future Research**

The previous sections focused on the findings, implications, strengths, and limitations of the current study. This section will now discuss some next steps for research in the university student career development field. Specifically, directions for future studies and potential follow-ups to the current study that would advance understanding of university students' career choice processes will be presented, with focus on family and culture, and international student career development. The ultimate goal of this future research is to better inform university counselling services and increase student retention, for more positive career outcomes for university students, including international students and domestic students.

### **Family and Culture**

The current study examined family influences and cultural influences on career decision-making and career choices, but more research is needed in this area. Future research could examine family influence specifically focused on family members outside the immediate family circle. The current study used a psychological measure that examined family more generally, but

students did not explicitly mention family members outside of the immediate family circle. It would be useful for future studies to examine how far family influence reaches outside of the immediate family circle, and what impact this could have on career decision-making. Further cultural influence research could examine the differences that could be present within domestic student populations in a Canadian context by looking specifically at students who identify from a non-dominant ethnic background. Given the findings of previous research in the United States that non-dominant ethnic groups experience career development and career choice differently (Alessandria & Nelson, 2005; Duffy & Klingaman, 2009), research situated in the Canadian cultural context is warranted.

Additional research is also needed to address the limitations of the current study. Specifically, future research could replicate the current study with more balanced groups and a greater number of participants in order to conduct a more powerful statistical analysis capable of examining interactions between contextual background factors such as gender and student status. Previous research has found that cultural differences (Hughes, 2011; Melendez & Melendez, 2010; Shin & Kelly, 2013) and gender differences (Chhin et al., 2008; Li & Kerpelman, 2007) are present when examining family influence, though the same was not found in the current study. Replication studies could determine if the lack of statistical significance in the current study was due to its small sample size.

### **International Students**

One of the main findings was that international students were different than domestic students in career decision-making self-efficacy, but not on family influence and cultural influence as found in previous research (Reynolds & Constantine, 2007; Singaravelu et al., 2005). As such, future research is needed that examines international students from different countries, and compares and contrasts their experiences in career choice with a much larger

sample. The students in the current study came from a variety of countries and cultural backgrounds, but there were not enough students from each to conduct a meaningful analysis. This research is needed to continue to challenge the stereotype that international students are homogenous and more collectivistic than domestic students.

Future research could also further investigate these trends using larger sample sizes, and a more powerful statistical analysis. The researcher hoped to conduct a factorial ANOVA to determine not only the differences between gender or student status, but how these factors interact and impact family influence and career decision-making self-efficacy; however, this was not a possibility given the imbalance between groups. Future research could compare and contrast international student men to domestic student men, and international student women to domestic student women, above and beyond comparing one group at a time. This could provide additional understanding around how individual difference variables shape and impact career decision-making self-efficacy, and help career practitioners and university leaders better tailor their services and programs to best meet these students' unique career needs.

Finally, the current study found that students who expressed a match between their career aspirations and their family's career expectations were more likely to be Canadian-born students, compared to students who expressed a mismatch, who were more likely to be foreign-born students. This is an interesting finding that warrants further investigating, as lack of family support for students pursuing higher education has been found to be a significant factor in university student attrition (Hunt et al., 2012). Future research could look at how these students made their career choice, and what differences potentially exist for students who expressed a match and those who expressed a mismatch. This research could be useful for university administrators, as it would provide additional information around what factors lead students to drop out of university and which factors encourage students to remain in school. This could also

help inform career services in their work with university students, and provide a greater understanding of the ways in which these students navigate the tension between their aspirations and their family's expectations when it comes to choosing a career.

### **Personal Reflections**

At the conclusion of this study, I felt it was important to reflect on the process and my personal learning from this research experience. Through conducting this study, I gained a better appreciation for the power of family support in career decision-making. Students overwhelmingly indicated they had their family's support to make their own career choice (though with some expressed guidelines), and the majority of students were pursuing their own career aspirations instead of their family's expectations (when expectations were reported). I am reminded of my own career decision-making journey and the support I had from my family and the confidence I felt in making these decisions and choices, secure in knowing I had their support.

This study also highlighted for me the need for additional support for international students who may face additional career decision-making uncertainty in the new cultural context of the host country, which is something that many Canadian-born and domestic students, myself included, take for granted. Although international students' family influence scores were not significantly different from domestic students' scores, more international students and foreign-born students expressed that their family had specific career expectations for them, which could add additional stress to an already challenging process. We need to be ready and able to support these students' career development to ensure their period of study in Canada is a positive and productive one.

### **Conclusions**

In conclusion, the current study investigated the relationships between family influence, cultural influence, and career decision-making self-efficacy, and how these relationships may

differ between international students and domestic students. Family influence and cultural influence have both been found to be significant factors in career decision-making, as parents are often positive motivators and facilitators for their children's careers (Otto, 2000), and family values and career expectations are often influenced by society's cultural norms (Hou & Leung, 2011; Singaravelu et al., 2005). These contextual background factors have a significant impact on career decision-making self-efficacy, which is the degree of confidence individuals have in their ability to successfully make career choices (Lent et al., 1994). This relationship between family influence, cultural influence, and career decision-making self-efficacy is particularly important for international students who choose to study in a Canadian context as part of their education.

Canada has a rich multicultural society, and international students contribute to the wider culture of educational institutions and local communities. International students are increasingly enrolling in Canadian post-secondary institutions as part of their career path, and contribute both socially and economically to the institutions that they study at (CBIE, 2015). International students have been researched extensively in terms of acculturation and adjustment, but less attention has been paid to their career development needs. This is particularly concerning given the low numbers of international students accessing campus career counselling services (Shen & Herr, 2004).

Given the importance of family influence and cultural influence on career development, and the career needs of international students, the current study sought to address this gap that exists in the literature. Undergraduate international students and domestic students at the University of Calgary were surveyed about their career decision-making self-efficacy, their perceptions of their family influence, their cultural values (individualistic and collectivistic), and additional information surrounding their career choice (i.e. their career aspirations and their



perceptions of their family's career expectations). The results found that for the current population, international students and domestic students were significantly different in terms of career decision-making self-efficacy (with international students reporting lower self-efficacy), but were similar in terms of family influence, and individualistic and collectivistic values.

However, there were some observed differences between international students and domestic students in terms of their career choice theme. Although the majority of all students in the current study expressed their family gave them the freedom to choose their own career (with some guidelines), international students were more likely to indicate their family had specific career expectations for them. International students and foreign born students were also more likely to indicate that their career aspirations did not match their family's career expectations.

Overall, the findings overwhelmingly point to students feeling supported by their family, and expressing their freedom to choose their own career path. The current findings also demonstrate that while international students and domestic students are similar in terms of family influence, there are observed differences in their career self-confidence. Although the factors that were thought to be influential were not found to be in the current study, it does highlight the difference in international and domestic students' career needs, and points to the importance of supporting international students' career development in their new cultural context.

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## **Appendix A**

### **Recruitment Message**

Greetings!

My name is Lisa Gust, and I am a Master's student in Educational Studies in Counselling Psychology. This is an invitation to participate in my research study. The research will be supervised by Dr. Nancy Arthur.

I am interested in how family and culture may be an influence on how university students decide on a career. Specifically, I am interested to see how this may be different in international students (those who travel to another country to study) and domestic students (those students who attend university in the country they are born in).

To find this, I will be using a questionnaire that asks students to rate a series of statements about their career choice, their family, and their cultural values. The questionnaire will take approximately 30 minutes to complete, and will be done in person in a group setting.

I'm looking for participants who are international and domestic (Canadian born) undergraduate students age 18-25. Your participation is voluntary and you can stop participating at any time during the study, and participating (or not) will have no effect on your grades or academic program.

You have the option to complete the survey now during the last half-hour of your class, or may complete the survey over lunch, with a light lunch provided.

If you are interested in participating or have further questions, please contact me at:  
(e-mail here)

## **Appendix B**

### **Demographic Questionnaire and Short Answer**

#### **Questionnaire**

Thank you for your interest! Please take your time to answer the following questions about yourself.

**Please circle one**

Gender:    Male                  Female                  Other

I am a(n):    International student                  Domestic (Canadian-born) student

**Please provide your:**

Age – \_\_\_\_\_

Country you originate from –  
\_\_\_\_\_

Time you have been living in Canada –  
\_\_\_\_\_

Academic major –  
\_\_\_\_\_

Year in academic program – \_\_\_\_\_

**Please take time to answer the following questions.**

What job/career do you hope to have in the future?

What job/career do your parents/family have?

What job/career do you think your family want for you?



## Appendix C

### Informed Consent



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**Name of Researcher, Faculty, Department, Telephone & Email:**

Lisa Gust, MSc Student, Werklund School of Education, Graduate Programs in Education

**Supervisor:**

Dr. Nancy Arthur, Professor, Werklund School of Education

**Title of Project:**

Family and Cultural Influence on Career Decision-Making Self-Efficacy: Comparisons between International Students and Domestic Students

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This consent form, a copy of which has been given to you, is only part of the process of informed consent. If you want more details about something mentioned here, or information not included here, you should feel free to ask. Please take the time to read this carefully and to understand any accompanying information.

The University of Calgary Conjoint Faculties Research Ethics Board has approved this research study.

**Purpose of the Study**

The purpose of this study is to investigate international students' and Canadian students' experiences in choosing a career. This study is being conducted in partial fulfillment of the researcher's Master's degree. You are invited to participate, however, participation is voluntary and you are not obligated to participate.

**What Will I Be Asked To Do?**

Should you choose to participate, you will be asked to complete a questionnaire with several statements, which ask you to rate them based on how 'true' they are to you and your experiences. Filling out the questionnaire will take approximately 30 minutes to complete. The questionnaire includes questions regarding how you decided on your career path, your family's influence, and your cultural values.

You may decline to answer or skip over any questions.

Your participation in this study is completely voluntary, and you are free to withdraw at any time without penalty.

Participation in this study is not related to your academic program or grades.

### **What Type of Personal Information Will Be Collected?**

Should you agree to participate, you will be asked to provide your age, gender, country of origin, the time you have been living in Canada, and academic major in addition to filling out the questionnaire.

### **Are there Risks or Benefits if I Participate?**

There is minimal risk in participating; however, reflecting on the questions has the potential to bring up memories of your career decision process that may be uncomfortable. Should you find that you are experiencing distress as a result of this study, there is support available through the University of Calgary SU Wellness Centre on campus:

Room 370 MacEwan Student Centre  
Phone: 403-210-9355, Option #2  
<http://www.ucalgary.ca/wellnesscentre/counselling>

### **What Happens to the Information I Provide?**

Participation is completely voluntary and confidential. You are free to discontinue participation at any time during the study, however any data you provide up to your withdrawal will be retained and used in the research. No one except the researcher and her supervisor will be allowed to see any of the answers to the questionnaire. Group information will be summarized for any presentation or publication of results. The questionnaires will be shredded when the study has been completed. The anonymous data will be stored for three years on a computer disk, at which time, it will be permanently erased.

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### ***Signatures***

Your signature on this form indicates that 1) you understand to your satisfaction the information provided to you about your participation in this research project, and 2) you agree to participate in the research project.

In no way does this waive your legal rights nor release the investigators, sponsors, or involved institutions from their legal and professional responsibilities. You are free to withdraw from this research project at any time. You should feel free to ask for clarification or new information throughout your participation.

Participant's Name: (please print) \_\_\_\_\_

Participant's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

Researcher's Name: (please print) \_\_\_\_\_

Researcher's Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**Questions/Concerns**

If you have any further questions or want clarification regarding this research and/or your participation, please contact:

Lisa Gust, MSc Student  
Werklund School of Education

Or my supervisor:

Dr. Nancy Arthur  
Werklund School of Education

If you have any concerns about the way you've been treated as a participant, please contact an Ethics Resource Officer, Research Services Office, University of Calgary.

A copy of this consent form has been given to you to keep for your records and reference. The investigator has kept a copy of the consent form.

## Appendix D

### Selection of Participant Responses to Short Answer

Identified Theme	Subthemes	Tone
<b>Freedom to Choose</b>  (Conditional and Unconditional)	<p><b><u>Conditional</u></b></p> <p><i>Financial Independence</i></p> <ul style="list-style-type: none"> <li>• Whichever one makes me happy and financially independent</li> <li>• Whatever I pick, that will support my lifestyle</li> <li>• They are happy with my choice, my dad just wishes teaching paid more</li> <li>• Something where I can support myself, beyond that the choice was left to me.</li> <li>• Anything that would pay my bills and make me happy</li> </ul> <p><i>Future Planning</i></p> <ul style="list-style-type: none"> <li>• Whatever makes me happy. Also something that can support me and my future family.</li> <li>• Whatever makes me happy and what I want to do with my life so I can support myself and enjoy my work</li> <li>• Whatever suits me and will ensure my happiness and security/comfort</li> <li>• The best which fits with what I want! But an evolving one (not doing the same thing the whole life)</li> </ul> <p><i>Job Characteristics</i></p> <ul style="list-style-type: none"> <li>• Whatever I would like as long as it's stable</li> <li>• Something that makes me happy, somewhat intellectually stimulating/or physically active/something that interests me</li> </ul>	Positive

	<ul style="list-style-type: none"> <li>• A fulfilling career with lots of responsibility that matches our values by respecting human rights and freedom</li> <li>• The best which fits with what I want! But an evolving one (not doing the same thing the whole life)</li> </ul> <p><i>Person-Job Fit</i></p> <ul style="list-style-type: none"> <li>• Whatever makes me happy and what I want to do with my life so I can support myself and enjoy my work</li> <li>• A career which I would be satisfied with, a career where I will be doing something that I like</li> <li>• Whatever is best for me</li> <li>• No one particular job; one that we enjoy</li> <li>• One that I believe in and draw happiness from</li> </ul> <p><i>Match Values</i></p> <ul style="list-style-type: none"> <li>• To be happy, and be who I was created to be, and please God.</li> <li>• A fulfilling career with lots of responsibility that matches our values by respecting human rights and freedom</li> </ul> <p><i>Education</i></p> <ul style="list-style-type: none"> <li>• Whatever I want as long as I'm educated and do it well</li> </ul> <p><b><u>Unconditional</u></b></p> <ul style="list-style-type: none"> <li>• Anything I choose</li> <li>• Whatever I want to do</li> <li>• I don't think they have a preference</li> <li>• They didn't obligate me to choose one, they let me choose what I wanted to do</li> <li>• I believe they'll support me</li> </ul>	
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	<p>no matter what, but they tend to push me towards administrative career</p> <ul style="list-style-type: none"> <li>• They want and support whatever I want</li> <li>• My parents have always pushed me to go into a science related field because they both have bachelor of science degrees but they ultimately want me to do what makes me happy (my sister is an arts major and they fully support her)</li> </ul> <p><i>Personal Happiness</i></p> <ul style="list-style-type: none"> <li>• Whatever makes me happy. Also something that can support me and my future family.</li> <li>• Something that makes me happy OR trades</li> <li>• Whatever makes me happy and what I want to do with my life so I can support myself and enjoy my work</li> <li>• They actually don't mind as long as I am happy with my decision</li> <li>• What will make me happy -&gt; teaching</li> </ul> <p><i>Career Passion</i></p> <ul style="list-style-type: none"> <li>• Whatever I will be happy doing and whatever I am passionate about.</li> <li>• Whatever makes me most interested and passionate about</li> </ul>	
<p><b>Family Expectations</b></p> <p>(Specific/Named Career and General Expectations)</p>	<p><b><u>Specific/Named Career</u></b></p> <ul style="list-style-type: none"> <li>• Doctor, lawyer</li> <li>• Doctor or dentist</li> <li>• Something that makes me happy OR trades</li> <li>• High profile? Lawyer/public</li> </ul>	<p>Neutral to Negative</p>

	<p>figure</p> <ul style="list-style-type: none"> <li>• Doctor, lawyer, engineer, grad/doctorate</li> <li>• I believe they'll support me no matter what, by they tend to push me towards administrative career</li> <li>• Teacher</li> <li>• Business with a focus in supply chain</li> <li>• Clinical psychologist</li> </ul> <p><b><u>General Expectations</u></b></p> <p><i>Education</i></p> <ul style="list-style-type: none"> <li>• A professional job with certification and/or diploma</li> <li>• Doctor, lawyer, engineer, grad/doctorate</li> <li>• Interestingly, they want me to be an architect after I graduated from university in China</li> </ul> <p><i>Job Characteristics</i></p> <ul style="list-style-type: none"> <li>• A professional job with certification and/or diploma</li> <li>• One where I will make use of my science education. One that doesn't involve physical labour.</li> <li>• Something high paying</li> <li>• Something that makes loads of money</li> <li>• Something that will make me earn lots of money, which I'm not concerned at all. Looking at the past, I was always encouraged to go to medicine or engineering</li> <li>• The job that I can get decent wage and the one that I can use expertise learned in university.</li> </ul> <p><i>Gendered Expectations</i></p> <ul style="list-style-type: none"> <li>• Pink collar job such as</li> </ul>	
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	<p>teacher, nurse, social work, etc.</p> <ul style="list-style-type: none"> <li>• HR Management. They don't want me to do jobs related with engineering or science. They think a girl should choose jobs which can sit in an office.</li> </ul>	
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