

Career Regret among University Students from Turkey: A Test of the Social Cognitive Career Theory

Duygu Biricik Gulseren
Saint Mary's University

Abstract

Drawing on the Social Cognitive Career Theory satisfaction model (Lent & Brown, 2006; 2008), the current study aimed to test the predictors of career regret among university students. Survey data was collected from 180 university students from Turkey. The results of the multiple serial mediators model (Model 6) test using PROCESS macro (Hayes, 2018) showed that higher levels of negative affect was associated with career regret because of low career self-efficacy and outcome expectations from one's career. This study has extended the Social Cognitive Career Theory satisfaction model (Lent & Brown, 2006; 2008) by testing career regret as an outcome. Using the findings of this study, career counsellors can identify clients who are at risk of developing career regret and work on enhancing their self-efficacy as well as outcome expectations to minimize future career regret.

Keywords: career regret, Social Cognitive Career Theory, university students

The topic of regret is a popular topic of conversation both in the media and daily conversations; however, despite its popularity in daily life, researchers have not paid much attention to this topic. Regret is defined as "a more or less painful judgement and state of feeling sorry for misfortunes, limitations, losses, shortcomings, transgressions, or mistakes" (Landman, 1993; p.4). It can

manifest itself after any number of possible decisions. However, their importance can vary based on their intensity and length (Gilovich & Medvec, 1995). For example, regret due to wearing uncomfortable shoes to a meeting is probably less intense and has shorter term outcomes compared to the regret due to undergoing an irreversible medical procedure.

A meta-analysis of eleven studies indicated that career-related regret (i.e. education and/or work) is the most common type of regret among Americans (Roese & Sumerville, 2005). Researchers have given some thought to the topic of career regret (e.g. Santra & Giri, 2017; Schieman, Pearlin, & Nguyen, 2005; Wrzesniewski, Tosti-Kharas, & Landman, 2006). These studies answered important questions such as what career regret is and why understanding career regret is important. Despite these efforts, career regret research is still at an immature stage (Sullivan, Forret, & Mainiero, 2007) and our knowledge regarding the causes of career regret is still limited. So far, only Sullivan et al. (2007) questioned *why* people experience career regret; however, their efforts were only able to be exploratory due to the lack of a sound theoretical framework of regret. Understanding what causes career regret is a crucial step in minimizing or avoiding the experience of career regret. Drawing on the Social Cognitive Career Theory satisfaction model (SCCT; Lent & Brown, 2006; 2008) the aim of the current study was to understand why and how university students

experience career regret. More specifically, the current study examines how university students' negative affect, career self-efficacy and outcome expectations are related to their career regret.

Career Regret

Regret has unique characteristics. First, making an initial decision is a prerequisite for regret (Connolly & Zeelenberg, 2002). People engage in counterfactual thinking (i.e. thinking what the alternatives might have been; Galinsky, Liljenquist, Kray, & Roese, 2005) and compare the outcomes of their decisions with possible outcomes of alternative decisions. Regret occurs if this comparison results in an undesirable conclusion (Zeelenberg & Pieters, 2007). Second, regret is an emotion that is shaped by cognitions. The intensity of regret experienced by individuals depends on their perception of the alternatives (Wrzesniewski et al., 2006). For example, if a person does not imagine a career alternative with better outcomes, he or she will not experience regret; therefore thoughts play a substantial role. Third, actions or inactions can cause regret (Gilovich & Medvec, 1995). For example, people can regret making a purchase for a not so useful item or not purchasing a well-priced one. Last, regret mandates retrospective thinking (Schieman et al., 2005). People feel regret only for the decisions they have made, but not for future decisions.

The topic of regret received a lot of attention in different fields. For example, Chen, Teng, Liu, and Zhu (2015) studied consumer regret, Ghidini, Sekulovic, and Castagnetti (2016) examined parental regret regarding the medical decisions of their children, or Sadatmahalleh, Ziaei, Kazemnejad, and Mohamadi (2018) investigated regret as a result of people's fertility-related decisions. Although regret can be experienced after decisions are made in every possible domain of life, specific types of regret can be more painful than others depending on the reversibility of their outcomes. Career choices are one of life's costly decisions; hence career regrets are rather painful.

A few studies documented the negative consequences of career related regret. For example, Wrzesniewski et al. (2006) found that career regret lead to absence from work via lowered job and life satisfaction. Similarly, Santra, and Giri (2017) collected data from 367 IT professionals from India and observed that career regret was related to job satisfaction and turnover intentions. Furthermore, a small group of researchers pondered the demographical causes of career regret. For instance, Schieman et al. (2005) explored the relationship between gender, education, and occupational regret¹ from a sociological perspective and found that women and people with low levels of education were more likely to experience occupational regret in later ages. In a similar vein, Sullivan et al. (2007) studied the relationship between downsizing and career regret. They found that people who were laid off experienced career choice regret more than those who kept their employment. Lastly, only

¹ Authors used the term occupational regret to refer to career regret.

one study used career regret as a mediator. In their study with 98 students from China, Li, Hou, and Jia (2015) observed that career regret mediated the effect of social comparison and the certainty of the career decisions. Despite these efforts, all of the aforementioned studies were exploratory in nature and thus lacked theory (Sullivan et al., 2007). Scientific progress requires theories (e.g., Campbell & Wilmot, 2018). The current study fills this gap by employing the Social Cognitive Career Theory (Lent & Brown, 2006; 2008).

Social Cognitive Career Theory

In the Social Cognitive Theory, Bandura (1982; 1989; 2011) has proposed that individuals are in a reciprocal relationship with their environments. People observe and evaluate their environments, make sense of them, and behave accordingly. They also contribute to shaping their environments (Bandura, 2011). Self-efficacy, which is defined as people's belief in their capabilities of achieving something, lies at the core of the Social Cognitive Theory (Bandura 1977, 1989). According to this theory, people choose actions over which they feel personal control and expect positive outcomes. For example, people choose to engage in regular physical exercise if they believe they can do it and that doing it will lead to positive results.

Social Cognitive Career Theory (SCCT; Lent, Brown, & Hackett, 1994), which was developed based on the basic premises of the Social Cognitive Theory (Bandura, 1989), has made specific propositions about the career interests (i.e. the interest model), career goals (i.e. the choice model), performance and persistence in their careers (i.e. the performance/persistence model),

and feelings of satisfaction (i.e. the satisfaction model; Sheu & Wang, 2019). The theory makes a prediction regarding career-related outcomes via personal predispositions, cognitive variables, and contextual factors (Sheu & Wang, 2019). Lent et al. (1994) suggested that when people feel efficacious in a particular field and have positive outcome expectations from that field, they show an interest in that field. For instance, a student who believes that she or he is good at solving complex mathematical problems may choose to be a computer scientist if she or he thinks being a computer scientist will bring good opportunities in life. This is an important theory in the field of vocational behavior because it has made more specific predictions compared to the established person-environment fit theories such as Dawis and Lofquist's (1984) or Holland's (1997). It also includes career interests and goals as intermediate steps (Lent et al., 1994).

Career-Related Self-Efficacy and the Satisfaction Model

Career-related self-efficacy, which is a focal variable of the SCCT, is an umbrella term used to refer to the cognitive appraisal of one's ability to perform a career-related behaviour well. Thus, a behavioural domain such as decision-making or career change must be defined before assessing self-efficacy (Betz & Hackett, 2006). Initially, Betz and Hackett (1981) identified two specific types of career-related self-efficacy. These were: (1) occupational entrance efficacy and (2) occupational self-efficacy. The first one was concerned with the efficacy to obtain necessary qualifications to enter an occupation, such as having a high grade point average in order to be admitted to

a medical school. The second one pertained to the ability to fulfill the duties of an occupation, such as learning all the laws and regulations in an administrative occupation (Betz & Hackett, 1981). Later on, researchers pinpointed other types of career-related self-efficacy such as career decision-making self-efficacy (i.e. the belief that one can make satisfying career decisions; Taylor & Betz, 1983), academic self-efficacy (i.e. the belief that one can perform well in academic courses; Huang, 2013), or college-going self-efficacy (i.e. the belief that one can attend and will be able to persist in college; Gibbons & Borders, 2010).

Different types of self-efficacy can be important for different models of the SCCT. For example, career decision-making self-efficacy (Taylor & Betz, 1983) is central to the choice model of SCCT because the outcome of interest in the model is career-decision making (Lent & Brown, 2008). The current study focused on the satisfaction model of the SCCT, which utilizes the construct of occupational self-efficacy (e.g., Hirschi, 2014; Spurk & Abele, 2014) and is defined as the competence people feel toward fulfilling the duties and overcoming the challenges of their chosen field (Rigotti, Schyns, & Mohr, 2008). Because occupational self-efficacy is the only career-related self-efficacy used in this study, the terms career self-efficacy and occupational self-efficacy will be used interchangeably in the rest of the article.

The original SCCT (Lent et al., 1994) explained how people's interests, goals, and behaviors were developed by environmental factors and cognitive processes, but it was silent about the well-being of individuals as a result of these decisions. Later on, Lent and Brown (2006; 2008) built the satisfaction model

of SCCT and explained how work satisfaction forms. The satisfaction model of SSCT (Lent & Brown, 2006; 2008) suggested that people's personality characteristics (i.e. positive affect, negative affect, extraversion, neuroticism, and conscientiousness) influence their cognitive processes (i.e. self-efficacy and outcome expectations), career goals, work conditions (e.g., working in a job which fits a person's values, style, and personality; Dawis, 2005), and the extent to which they participate in goal directed activities. As a consequence of these steps, people experience higher levels of work satisfaction or dissatisfaction.

Quite a number of studies utilized the SCCT satisfaction model (Lent & Brown, 2006; 2008). For instance, Duffy and Lent (2009) tested the full SCCT satisfaction model (Lent & Brown, 2006; 2008) using data collected from 366 teachers from the USA. They found a good fit of the overall model. The results of the structural path analysis displayed that work conditions, self-efficacy and positive affect had direct associations with work satisfaction whereas goal support had indirect association via goal progress, work conditions, and self-efficacy. Similarly, Lent et al. (2016) followed 908 university students in the USA during their university lives to test the full SCCT satisfaction model (Lent & Brown, 2006; 2008). Data supported the SCCT satisfaction model (Lent & Brown, 2006; 2008). They found that persistence intentions, satisfaction with the major, self-efficacy and social support at the end of the first year predicted persistence scores in the third year. Additionally, self-efficacy at the end of the first year predicted grade point average in the third year.

Researchers have also tested specific aspects of the theory. For example, Wang (2013) looked at the relationship between self-efficacy and performance, and found that students who entered in a science technology, engineering and mathematics (STEM) fields had high levels of mathematic self-efficacy beliefs and high grades from mathematics and science courses in the 12th grade. In another study, Schooreel, Shockley, and Verbruggen (2017) demonstrated that home to career interference, defined as the negative effect of family decisions on one's career, caused decreased career satisfaction among a group of Belgian employees working at the telecommunications industry because they had low levels of career self-efficacy. Troesch and Bauer (2017) also examined the relationship between the path of teaching as a second career, self-efficacy beliefs, and job satisfaction among teachers. Their findings indicated that when the effects of age and gender are controlled, teachers that are in their second career had higher levels of teaching self-efficacy and job satisfaction.

Previous studies indicated that trait affect and well-being outcomes are related through cognitive appraisals. For example, Duffy and Lent (2009) found that teachers with positive affect had high levels job satisfaction both directly and indirectly through increased self-efficacy. In another study, Lent et al. (2013) found that the relationship between positive affect and work satisfaction were mediated by both self-efficacy and outcome expectations among a group of American university students. Lastly, Conklin, Dahling, and Garcia (2013) observed that self-efficacy and outcome expectations are also positively related.

Although they are conceptually different (Beike, Markman, & Karadogan, 2009), dissatisfaction is the closest construct to regret in the nomological network (Tsiros & Mittal, 2000). As one can see from the review of the previous studies, the SCCT could make specific predictions to why, how and when people will experience career satisfaction or lack thereof. People generally experience dissatisfaction and regret simultaneously (e.g., Bui, Krishen, & Bates, 2009; Tsiros & Mittal, 2000). The SCCT also links cognitive processes to emotional outcomes (Sheu & Wang, 2019). Career self-efficacy is cognition (Betz & Hackett, 2006) and career regret is a cognition-triggered emotion (Wrzesniewski et al., 2006). Therefore, the SCCT would be an appropriate start to understand the career regret.

The Context of the Study

The current study utilized data collected from a sample of students in Turkey. Hofstede's (2011) framework, which he developed in order to compare different national cultures, would be helpful in understanding the cultural context of Turkey. In his seminal work, Hofstede (2011) characterised national cultures in four dimensions (i.e. collectivism, masculinity, uncertainty avoidance, and power distance). Collectivism refers to the degree to which group decisions dominate over individual decisions (Hofstede, 1980). Similarly, masculinity is concerned with preference towards financial gain, achievement and competition rather than towards social harmony (Hofstede, 2011). In cultures of uncertainty avoidance, ambiguous situations create anxiety among people (Hofstede, 1980). Finally, power distance refers to the unequal distribution of power

between people in the higher and lower levels of a hierarchy (Hofstede, 2011).

Located in both Asia and Europe, Turkish culture is classified as a culture of collectivism and masculinity with high levels of uncertainty avoidance and power distance (Hofstede, 1980). Collectivism reflects high levels of family involvement in the career decision making of students (Aycaan & Fikret-Pasa, 2003). Similarly, the masculinity norms reflects that students often end up choosing majors in which they can have the highest level of financial success (Karakitapoglu-Aygun, Arslan, & Guney, 2008). High levels of uncertainty avoidance motivates them to choose careers in which they can have the highest job security possible (Karakitapoglu-Aygun et al., 2008). Lastly, because of high power distance orientations, they are more inclined to choose careers where they can exert power over others (Aycaan & Fikret-Pasa, 2003).

The effects of the national culture on the educational system is obvious in Turkey. The system requires students to make an initial career decision about their career tracks before starting high school. Students have options to choose to attend different schools: these include academic, vocational and technical or religious high schools. If the academic path is chosen, they also need to select either a (1) science, (2) Turkish literature and mathematics, (3) social sciences, or (4) languages track. These initial choices are important career decisions because the type of high school students graduate from influences their chances of being admitted into an undergraduate program. Moreover, changing one's track is costly as students take different courses in each track; if students decide to switch to

another track, they are expected to have the knowledge of the all of the courses covered so far.

Citizens of Turkey with a high school diploma have to take a nation-wide standardized exam in order to be admitted into a four year undergraduate program in a university. Candidates fill out a form listing the undergraduate programs they wish to enter in their order of preference. The student selection and placement centre (*Ogrenci Secme ve Yerlestirme Merkezi* [Student Selection and Placement Centre], 2016) collects these forms and announces the program in which candidates have been admitted based on their exam scores and preferences. Candidates receive bonus scores if they choose a major that is compatible with their high school background (Tezic et al., 2007). Given the highly competitive nature of the national placement examination, many students cannot afford to turn down the bonus score. Thus, they end up choosing a major based on their high-school specialization (Korkut-Owen, Kepir, Ozdemir, Ulas & Yilmaz, 2012). This increases the importance of the career decision made at the age of 14. Major career changes are highly costly after this point (Koseleci, 2015).

Only one published study tested the SCCT satisfaction model using a Turkish sample. Buyukgoze-Kavas, Duffy, Guneri, and Autin (2014) examined the predictors of job satisfaction among teachers in Turkey. They found that positive affective trait, work related goal progress, perceived organizational support, and teacher self-efficacy were all positively related with job satisfaction. The strength of the relationships between goal progress, perceived organizational support, and job satisfaction were also dependent on the type of school (i.e.

elementary or secondary) where the teachers taught.

Building on the SCCT satisfaction model (Lent & Brown, 2006; 2008), the current study attempted to identify predictors of career regret. Negative affective trait, career self-efficacy, outcome expectations and career regret were the variables of this study. I expected that career self-efficacy and outcome expectations students had from their majors would mediate the negative affect and career regret link. Students with negative affect would have a tendency to underestimate their abilities; hence they would have low levels of self-reported career self-efficacy. Similarly, students with negative affective dispositions would be so despondent that they would have low expectations from their careers. Moreover, students with low career self-efficacy would be also have low outcome expectations because they would not trust in their capability to be successful. Therefore, the following hypotheses were formulated:

H1: Negative affect will be positively associated with career regret.

H2: Career self-efficacy will mediate the relationship between negative affect and career regret.

H3: Outcome expectations will mediate the relationship between negative affect and career regret.

H4: Career self-efficacy and outcome expectations will be positively associated.

Methods

Participants

A total of 180 Turkish-speaking university students (62% female, 32% male, 6%

unspecified) from a medium size, non-profit private university in Turkey participated in this study. Participants' age ranged between 18 and 28. The mean age was 22.3 years with a standard deviation of 1.4 years. Participants were registered in a mandatory introductory level Psychology course, the majority (76%) of participants were enrolled in the faculty of administrative sciences and economics, 14%, from the faculty of engineering, 8% from the faculty of social sciences and humanities and 2% from the faculty of sciences. Students were compensated for their participation in the study with a bonus credit.

Measures

Negative affect.

Bradburn's (1969) affect balance scale's negative affect items were used to measure participants' positive and negative affect during the time of the study. The scale is composed of 10 items in total, the last five items measuring negative affect. Response options ranged from 1 (never) and 5 (always). Sample items included: "To what extent did you feel depressed or unhappy in general?" Ormel (1983) reported .72 as the Cronbach's alpha score of this scale.

Career self-efficacy.

Rigotti et al.'s (2008) occupational self-efficacy scale was used to measure career-related self-efficacy of the university students. The scale consisted 6 Likert-type items. The response options ranged between 1 (not all true) to 5 (completely true). A sample item was: "Whatever comes my way in my job, I can usually handle it." The Cronbach's alpha score was reported between

.86 and .90 across five samples (Rigotti et al., 2008).

Career outcome expectations.

Participants' career expectations upon graduating from university was measured using a modified version of Bieschke's (2000) revised research outcome expectations scale. The original items were contextualized in the career domain. The scale consisted of 8 items. Response options ranged from 1 (totally disagree) and 5 (totally agree). A sample item was: "Studying in this field will enhance my job/career opportunities." The Cronbach's alpha score was reported at .89 (Bieschke, 2000).

Career regret.

A modified version of Wrzesniewski et al.'s (2006) occupational regret scale was used to measure students' career regrets. The original scale consisted of 6 items. Two items were dropped because of poor factor loadings (i.e. less than .4; Hinkin, 1998). This increased the Cronbach's alpha score from .47 to .73. The word "work" was substituted with "careers" to make it more applicable to the aim of the study. The final scale consisted of 4 Likert-type items. Response options ranged from 1 (totally disagree) and 5 (totally agree). A sample item was: "If I had to do it all over again, there are very few things about my work life that I would change."

Demographic variables.

Demographic data regarding participants' age, sex, and major were collected to control for a possible confounding effect.

A Turkish translation of the scales

were distributed to the participants. To ensure the accuracy of the translation, scales were translated and back translated by the author and a bilingual translator.

Results

Descriptive Statistics and Zero Order Correlations

Correlational analyses showed that self-efficacy, career outcome expectations, career regret, and self-concept clarity were all significantly correlated with each other. Table 1 presents the descriptive statistics and inter-correlations of these variables.

Assumption Testing

An initial data screening and exploratory analysis demonstrated that all of the study variables (i.e. negative affect, self-efficacy, outcome expectations, and career regret) had skewness values between -1 and 1 and kurtosis values between -2 and +2. Therefore, data

satisfied the normality assumption (George & Mallery, 2010). Second, assumption of multicollinearity was checked. Results yielded an average variance inflation factor score of 1.2 which was below a cut off score of 10 (Ryan, 2008). Therefore, the multicollinearity was not a threat for further analyses. Lastly, Harmon’s single factor test was used to check for a possible common method bias. The results illustrated that the single factor explained 34.8% of the total variance which was less than the majority (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003). Therefore, the common method was not a threat for the accuracy of further analyses.

Model Testing

The hypotheses were tested using a serial multiple mediator model using a regression based approach (Hayes, 2012). Running these analyses simultaneously corresponds to Model 6 in PROCESS macro for SPSS in version 3 (Hayes, 2018). In Model 6, the relationship between the independent and the

dependent variables is tested through two mediators that are causally related. The first mediator partially mediates the relationship between the independent variable and the second mediator. Similarly, the second mediator partially mediates the relationship between the first mediator and the dependent variable. Lastly, first mediator variable is related to the second mediator in this model. All of the variables were mean centered and bias corrected with 95% confidence intervals obtained with bootstrapping with 5,000 bootstrap samples (Aiken & West, 1991). Table 2 presents the regression coefficients, and 95% confidence intervals of all study variables.

Four hypotheses were tested using regression analyses. Hypothesis 1 stated that a “negative affect will be positively associated with career regret” Using negative affect as the independent variable and career regret as the dependent variable, this hypothesis was supported ($B = .21$, $LLCI = .09$, $ULLCI = .33$). As anticipated, students with higher levels of negative affect were more likely

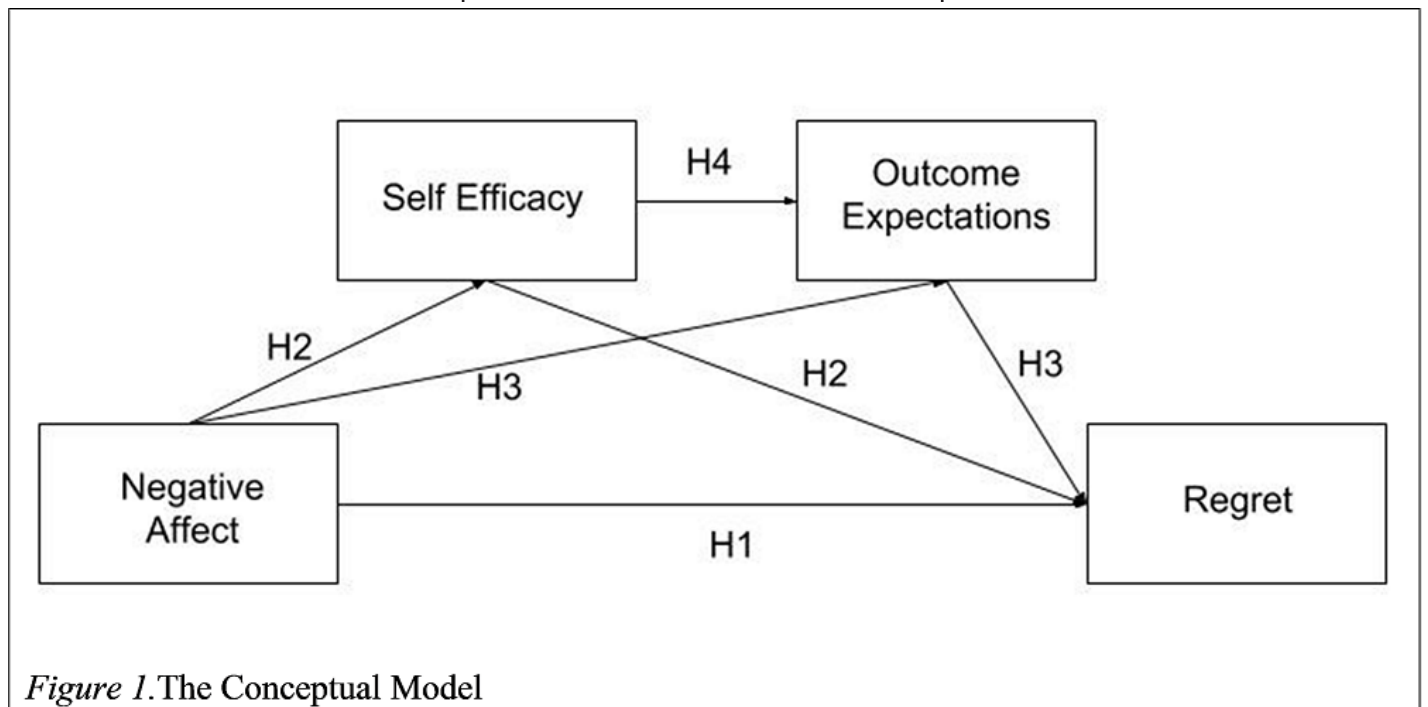


Figure 1. The Conceptual Model

to experience career regret ($B = .21$, $LLCI = .09$, $ULLCI = .33$). Therefore, Hypothesis 1 was supported. Negative affect and career self-efficacy as well as career-self efficacy and outcome expectations were found to be negatively associated ($B = -.30$, $LLCI = -.44$, $ULLCI = -.16$ and $B = .61$, $LLCI = .47$, $ULLCI = .74$ respectively). However, no significant relationship was found between negative affect and outcome expectations ($B = -.01$, $LLCI = -.14$, $ULLCI = .12$). Therefore, Hypothesis 2 was partially supported. Outcome expectations and career regret was found to be negatively related ($B = -.14$, $LLCI = -.14$, $ULLCI = -.26$), but career self-efficacy and career regret was not significantly related ($B = .12$, $LLCI = -.02$, $ULLCI = .26$). Therefore, Hypothesis 3 was also partially supported. Negative affect and career regret were found to be positively associated ($B = .21$, $LLCI = .10$, $ULLCI = .32$). Lastly, career self-efficacy and outcome expectations were positively related ($B = .21$, $LLCI = .10$, $ULLCI = .32$). Therefore, Hypothesis 4 was supported.

Discussion

This study aimed to test three predictors of career regret among university students. The analysis of the data collected from a sample of university students from Turkey indicated that negative affect is a predictor of career regret. In addition, this relationship is mediated by career related self-efficacy and outcome expectations. In other words, people with negative affect are more likely to experience career regret because of their dispositional tendency to disregard the possibility of achieving success and having meaningful career outcomes.

All of these findings pointed in the expected direction except for two. Drawing on the SCCT satisfaction model (Lent & Brown, 2006; 2008), both self-efficacy and outcome expectations were expected to partially mediate the link between negative affect and career regret. However, the findings presented that negative affect was related to outcome expectations only via lowered self-efficacy. Similarly, self-efficacy was related to career regret only

because of heightened outcome expectations.

The full mediation between negative affect and outcome expectations via self-efficacy can be explained by the interactive quality of self-efficacy. Negative affect has been described as a dispositional characteristic (e.g., Vedhara et al., 2015). In contrast, career outcome expectations are mostly affected by social and economic factors such as availability of employment opportunities. Hence, individuals' traits may not be sufficient to predict their expectations directly. Self-efficacy is a type of cognitive appraisal which occurs as a result of one's assessment of the compatibility of their personal resources and the demands of a situation (Bandura, 1982; Lent & Brown, 2006). Thus, it is a linking mechanism that connects situational factors and dispositional factors. Because it is influenced by the situation, it is a dynamic variable. Additionally, due to its reflective nature, self-efficacy has a potential to result in changes in individual outcomes.

Social cognitive theory (Bandura, 1989) might be useful

Table 1

Means, Standard Deviations, and Inter-correlations

	Mean	SD	1	2	3	4	5	6
1 – Negative affect	2.50	.80	1					
2 – Self efficacy	3.80	.82	-.26**	1				
3 – Outcome expectations	4.00	.82	-.19*	.59**	1			
4 – Career regret	3.10	.56	.28**	.00	-.15	1		
5 - Age	20.33	1.41	.07	-.15*	-.14	.17*	1	
6 – Sex	-	-	-.02	.04	-.05	-.02	.16*	1
7 – Faculty	-	-	.05	-.19*	-.06	.06	.29**	.00

P* <.05, p**<.01

explaining the full mediation between self-efficacy and career regret via career outcome expectations. Bandura (1989) proposes that depending on the costs associated with the independent variable, the interplay of self-efficacy, outcome expectations, and outcome might differ. When the outcomes are relatively less important, people with high self-efficacy can choose to perform a particular behavior regardless of expected consequences of that action. Nevertheless, when the outcomes are associated with high costs, self-efficacy can be insufficient to lead the behavior because the consequences of the action would matter to the person (Lent et al., 1994). Career decisions which are precursors to career regret have serious and mostly irreversible consequences (Wrzesniewski et al., 2006). Individuals would not want to make a career decision without considering its outcomes. Therefore, high levels of self-efficacy can lessen career regret if they lead to enhanced outcome expectations.

Practical and Theoretical Implications

The findings of this study suggest that people with negative affective traits are more likely to experience career regret. In other words, people with negative affect are more likely to experience career regret because they are less likely to believe in their abilities to achieve success and have meaningful career outcomes. Traits are stable characteristics and they are largely affected by inborn factors such as genes (e.g., Sommer et al., 2010). Identifying individuals who are at risk of experiencing career regret is one of the practical implications of this study. The findings of this study underline the importance of the assessment

process with the client. Career counsellors can assess the personality of their clients and provide them with feedback prior to working on career-related issues. Through standard measures and interviews, counsellors can identify clients' affective dispositions and talk to them about the relationship between negative affectivity and career regret. Similarly, identifying clients' affective predispositions can help counsellors determine the length and focus of the counselling process. For example, a client who has a high level of negative affectivity might need to work more on their career decision-making process to avoid future regrets than a client with positive affectivity.

Although intervening on personality might not be possible, the buffering factors such as career self-efficacy and career outcome expectations are more conducive to change. Using the findings of this study, counsellors can on their career self-efficacy and outcome expectations in their sessions. The Social Cognitive Theory (Bandura, 1977) identified four ways that individuals increase their levels of self-efficacy. These are (1) through positive experience, (2) encouragement and positive feedback from external sources, (3) observing others, and (4) managing anxiety and other types of emotional arousal. Clients and counsellors can utilize each of these methods to cultivate self-efficacy. For example, internship programs where clients can find an opportunity to observe that they are capable of performing particular tasks can be helpful. Similarly, mentorship programs where clients are matched with mentors from their career of interest can be encouraging.

This study also advances SCCT satisfaction model (Lent & Brown, 2006; 2008) in a unique way

by integrating the concept of career regret come. It suggests that career regret which is an emotion that can only be experienced after a person makes a career decision as a possible variable of SCCT satisfaction model (Lent & Brown, 2006; 2008). SCCT makes concrete propositions about the influences on one's career and work satisfaction. Studies that used SCCT satisfaction model (Lent & Brown, 2006; 2008) examined several outcomes such as job and life satisfaction (e.g., Lent et al., 2011), career choice satisfaction (Eun, Sohn, & Lee, 2013), and academic satisfaction (e.g., Flores et al., 2014). However, regret is more than the lack of satisfaction (Wrzesniewski et al., 2006). Several studies suggested that regret might be linking mechanism between outcomes expectations and satisfaction in a given domain (e.g., Van Dijk & Zeelenberg, 2002; Zeelenberg & Pieters, 2007). In light of these findings, career regret could be included in the SCCT satisfaction model (Lent & Brown, 2006; 2008).

Limitations and Future Studies

Like all other studies, the current study also has limitations. One of these shortcomings is the cross-sectional and self-reporting nature of this study. Although the results are suggestive of a possible relationship between negative affect, career self-efficacy, outcome expectations, and career regret, they only provide a snapshot taken at a single point in time. The causal inferences are made under the guidance of SCCT, but more robust methods such as true longitudinal studies can give a better idea about the direction of the relationships. Additionally, although common method bias was not found to be a threat for this study, future research can provide

Table 2

Effect of Independent Variables and Mediators on Career Regret

			IV = NA	IV = SE	IV = OE
Direct Effects	Direct Effect of IV on SE	B	-.30		
		LLCI	-.44		
		ULCI	-.16		
	Direct Effect of IV on OE	B	-.01	.61	
		LLCI	-.15	.46	
		ULCI	.12	.74	
	Direct Effect of IV on CR	B	.21	.12	-.14
		LLCI	.09	-.02	-.25
		ULCI	.33	.25	-.02
Indirect Effects	Indirect Effect of NA on CR via SE	B	-.04		
		LLCI	-.08		
		ULCI	.01		
	Indirect Effect of NA on CR via OE	B	.00		
		LLCI	-.02		
		ULCI	.02		
	Indirect Effect of NA on CR via SE and OE	B	.02		
		LLCI	.00		
		ULCI	.06		
Total Effect	Total Effect of NA on CR	B	.20		
		LLCI	.09		
		ULCI	.31		

Notes. IV= Independent variable, NA= Negative affect, SE=Self-efficacy, OE= Outcome expectations, CR= Career regret, LLCI = Lower limit confidence interval, ULCI = Upper limit confidence interval.

an analysis of data collected from multiple parties. Lastly, the sample size of the current study was limited to 180 people. Future studies can utilize larger samples to make better generalizations of the findings. Similarly, the findings of this study are limited to a student sample from Turkey. Testing the same relationships using similar samples from other cultures should be the next step in order to improve the generalizability of the findings. Researchers might observe different relationships as the national culture might have affected the results.

Another possible area for future investigations is the effect of demographical variables on self-efficacy and career regret. Bivariate correlations demonstrated significant correlations between age, self-efficacy, and career regret. Similarly, there is a strong correlation between faculty and self-efficacy. Exploring the role of age and students' major in career self-efficacy and career regret in more detail could be an interesting study to pursue as well.

The current study approached the topic of career regret through a Social Cognitive Career Theory (Lent & Brown, 2006; 2008) lens. However, the nomological network of career regret is not limited to the variables tested in this study. Prospective studies could examine the role of career decision-making and career resilience in career regret. These findings could be particularly useful in linking the topic of career regret to the existing career literature. Similarly, these studies can allow future interventions to prevent career regret. For example, Waddell and colleagues (Waddell, Spalding, Navarro, & Gaitana, 2015; Waddell, Spalding, Navarro, Jancer, & Canizares, 2015; Waddell et al., 2015) conducted a longitudinal randomized control intervention study

with nursing students and found increased career resilience and career decision-making self-efficacy levels in the intervention group. Their intervention involved activities that allowed participants to identify their strengths and weaknesses, set career goals, and develop career plans. Future studies could suggest interventions to reduce career regret by enhancing career, resilience, and self-efficacy.

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