



## Moderating Effect of Career Trait Anxiety between the relationship of Career Exploration and Career Indecision among the Youngsters: A study on Iraq Universities

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### ABSTRACT

This study examines the moderating effect of career trait anxiety (CATA) on the association between career exploration (CAE) and career indecisions (CAI) among university students in Iraq. Three hundred fifty students completed the self-administered questionnaire disseminated using a convenient sample technique to students in higher education. The quantitative research approach, cross-sectional research, and Partial Least Square (PLS)-Structural Equation Modeling (SEM) were utilized for the measurement and structural model.

The regression results demonstrated a strong connection between CAE and CAI. Both general trait career anxiety (GETCA) and expected career anxiety (EXCA) have a positive and statistically significant effect on CAI. The indirect impact also showed a substantial relationship between CATA and TAI. The findings suggest that the function of career trait anxiety in decision-making and job exploration may change over time. From a cross-sectional perspective, career trait anxiety may promote CAE and, ultimately, professional decision-making, despite being related to less inquiry and more serious difficulties in decision-making. The study could help regulatory authorities and decision-makers support effective career counseling among students to choose the correct profession.

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## Introduction

One of the most important career topics is career indecision (CAI) (Osipow, 1999). Although picking a career can be done at any time in one's life, university students have a significant obligation to do so (Gati, Krausz, & Osipow, 1996). To prepare for the transition from college to the workforce, students examine several career paths during college and develop specific professional goals. In this process, doubt regarding one's job may be a transient sensation that improves over time. There are, however, variations in how individuals approach making professional judgments. Therefore, it is probable that this time limit will make decision-making harder. CAI, defined as the inability to make decisions and ambiguity regarding another option when placed in a decision-making position, is intimately connected to the educational environments in which such decisions are made (Crites, 1974). Together, Neice and Neice and Bradley (1979) The researchers concluded that CAI, a key obstacle in decision-making in many situations, can be a common transitional step in deciding on a certain decision (Van Matre & Cooper, 1984). CAI occurs in adolescents when there is a conflict between career exploration (CAE) and career trait anxiety (CATA). Some people may find it easy to choose a job, while others have difficulty doing so (Gati et al., 1996).

Numerous researchers have examined behavioral variables to appreciate individual differences in CAI (Bullock-Yowell et al., 2011). Multiple cognitive features, such as dysfunctional professional attitudes and low career decision-making self-efficacy, have been associated with CAI (Kleiman et al., 2004). Several scholars have also asserted that these factors, besides CATA and CAE behavior, have a stronger influence on CAI (Betz & Voyten, 1997).

CATA, in particular, has been shown as a strong predictor of CAI (Germeijs, Verschueren, & Soenens, 2006). According to Fuqua, Newman, and Seaworth (1988), CATA has a greater impact on CAI than state anxiety and is closely associated with it. According to (Fuqua, Seaworth, & Newman, 1987) and Kirdök and Korkmaz (2018), persons with a higher CAI have a harder time making employment decisions and are less satisfied with their work decisions (Kimes & Troth, 1974). Anxiety management is therefore seen as a successful CAI intervention (Mendonca & Siess, 1976). In addition, Gribben and Keitel (1992) found that persons with a high CATA regarded professional decisions as a threat rather than a challenge, which made decision-making more difficult.

Gribben and Keitel (1992) supported the notion that CATA and CAE contributed both directly and indirectly to CAI. CAE is a proximal predictor of CAI (Cheung, 2015). They simplify professional decisions by identifying, selecting, and implementing career objectives (Blustein et al., 1994). Exploration is inhibited when an activity is seen as a threat and precautions are taken to avoid it (Newman, Gray, & Fuqua, 1999). Consequently, those with a larger CATA may leave CAE to avoid a possibly precarious employment position (Saks & Ashforth, 2000). Previous research has confirmed the negative association between anxiety and CAE behaviors (Reed, Bruch, & Haase, 2004) and the positive association between trait anxiety and CAI, demonstrating that individuals with high trait anxiety are more likely to abandon their exploration before it has even begun (Park et al., 2017).

A current study suggests that CATA may influence CAE, making it difficult to make professional decisions. However, they are limited since they have not considered

developmental progress. In response to the impending transfer to the working world, the need for more specific professional objectives among college students increasingly rises, as do their degrees of career decision and CAE (Porfeli & Skorikov, 2010). Although a previous study has established a connection between CAE and CAI (Blustein, 1992), no one has previously examined how the developmental trajectory of CAE might be used to predict that of CAI. In addition, cross-sectional designs have not been the predominant strategy for investigating the impact of CATA on CAE. Because CAE follows its developmental path, the results of a cross-sectional study, particularly those involving CAI, cannot be utilized to predict how trait anxiety will affect CAE.

Consequently, there must be a stronger relationship between these markers, CAE, CATA, and CAI. This study aims to determine whether CATA can mitigate the association between CAE and CAI. To analyze the correlations between CATA, CAI, and CAI, cross-sectional data were employed in this study, allowing researchers to see progressive changes and their relationships (Prideaux & Creed, 2001).

Introduction, literature review, study methodology, data analysis, and outcomes discussion comprised the five aspects of the research.

## Literature Review

### Career exploration and career indecision

The CAE process enhances an individual's understanding of themselves and their environment, which aids in career planning (Blustein, 1992). During this exploration phase, individuals obtain information that clarifies their interests. The job exploration approach promotes career advancement by eliminating the uncertainty caused by a lack of vocational information (Blustein et al., 1994).

According to the developmental perspective, professional hesitancy is a necessary step preceding job choice (Erikson, 1972; Osipow, 1990). It corresponds to a time when adolescents and young adults investigate potential career possibilities. Consequently, one may assume that it would establish a positive relationship between the degrees of CAE and CAI throughout the choice-elaboration stage, even if CAE may help professional development by enhancing career selections. Both of these processes may be regarded as lifetime adaptation in a society where the future of labor is unpredictable (Flum & Blustein, 2000; Savickas et al., 2009).

Earlier studies, such as (Blustein & Phillips, 1988; Savickas et al., 2009) (D. L. Blustein & Phillips, 1988), have shown that the stress involved with making professional decisions needs exploratory behavior. According to this study, we can suppose that CAE and decision-making procedures interact, with CAI serving as either a cause or a consequence of CAE and, by extension, the difficulty in making career-related decisions. The following hypothesis is made based on these results.

**H1:** Career exploration has a significant relationship with career indecision.

### Anxiety and career indecision

According to Newman et al. (1999), attempts have been made in the field of professional psychology over the past three decades to explain and illustrate the concept of career

hesitancy. Early studies aimed to identify the psychological causes and effects of CAI (Newman et al., 1999). One of these relationships is anxiety. According to Brown and Rector (2008), anxiety (attitude and mood) has become an element that contributes to negative affect and substantially contributes to CAI.

Earlier research revealed a favorable correlation between GETCA and career uncertainty (Campagna & Curtis, 2007). There are numerous associations between anxiety and CAI (Newman et al., 1999). Anxiety can be viewed as a learned response to a circumstance characterized by developmental factors or informational gaps (Goodstein, 1965). Failure to obtain the requisite skills before settling on a career choice may result in anxiety. One such element is that anxiety stops individuals from acquiring and utilizing the knowledge and skills necessary for making career decisions (Crites & Taber, 2002). According to Park et al. (2017), if there is no clear evidence of a cause-and-effect relationship, these two components may have a continuous reciprocal connection. To our knowledge, relatively few studies have examined how various types of CATA affect CAI (Parker et al., 2022).

While GETCA is related to CAI (Daniels et al., 2011). Anxiety is evaluated as the unpredictability of making a decision or the agony of being unable to make a decision. This career decision anxiety is associated with a greater degree of professional ambiguity. People with high anxiety do not use self-efficacy-based coping mechanisms when faced with a potentially harmful situation, such as choosing a career (O'Hare & Tamburri, 1986). They try to leave the hazardous atmosphere but put off deciding on a profession. However, choosing a career or fearing a poor decision are neither the only nor the most prevalent reasons for vocational trait anxiety. As previously said, the unpredictability of the current labor market and the increase in European youth unemployment may cause some Europeans to develop professional anxiety. We believe that the fear of academic or professional failure, such as failing grades or losing one's job, can make it more difficult for French high school students to choose a career path. According to the research of Saka, Gati, and Kelly (2008) professional decision-making challenges can be traced back to a person's gloomy attitude, anxiety, self-concept, and identity (including CAI and career indecisiveness). Under this paradigm, generalized anxiety disorder (GAD) is considered a component of an individual's sense of self. Different types of professional anxiety are responses to the need to decide between alternative courses of action. According to an earlier empirical study (Bullock-Yowell et al., 2011), a person's overall personality traits and emotions are associated with difficulties in making career decisions. According to the research of Saka et al. (2008), recurrent problems in making career decisions are linked to trait anxiety in general. Certain studies found a correlation between job uncertainty and career decision-making difficulties (Germeijs et al., 2006).

On the other hand, career indecision is grounded on enduring personality features. Although professional uncertainty is a temporary step in career decision-making, it can have a major impact (Santos, Ferreira, & Gonçalves, 2014) Given these factors, it appears reasonable to assume that professional ambiguity would correlate positively with GETCA and CATA. Because career hesitance is a transitory stage along the path to professional decision-making, it must be impacted more by adolescents' perceptions of the professional world as uncertain and unsettling (career anxiety) than by a wide and stable aspect of their personality (general trait anxiety). Consequently, the following study hypothesis is established based on the prior discussion:

**H2:** The general career trait anxiety significantly correlates with career indecision.

**H3:** The expected career trait anxiety significantly correlates with career indecision.

### **Career exploration, Career Trait Anxiety, and Career Indecision**

Previous research has demonstrated that CAE, career trait anxiety and CAI are related, but the nature of this association is still unclear. Anxiety is typically considered a trait or an emotional state. According to [Papay and Spielberger \(1986\)](#) important distinction, state anxiety is the tendency to feel worried in response to a situation perceived as dangerous. A personality trait known as GETCA refers to the propensity to experience anxiety in various situations. The assessment of trait anxiety does not account for context-specific variables. Other theorists, however, argue that personality traits and occupational psychology should be evaluated from a "person-in-context" perspective ([Endler et al., 1991](#); [Wille, Beyers, & De Fruyt, 2012](#)).

Nonetheless, a new social structure of employment and a more unpredictable labor market characterize the unique socioeconomic condition of the 21st century ([Wille et al., 2012](#)). There are currently concerning conditions for young people entering the workforce in Europe, particularly in France. A diploma or degree can help prevent unemployment, but the unemployment rate among young individuals is high, and the available jobs are typically temporary and low-paying ([Barret, Ryk, & Volle, 2014](#)). In light of globalization, the young adult population is vital in reshaping France's economy, as they are particularly uncertain about the future. Senior teenagers and young adults in southern Europe who experience insecurity and uncertainty regarding their future employment may experience anxiety ([Papini, Rogman, & Perruca, 2008](#)). In this context, decisions and transitions related to work and school can be stressful and generate anxiety ([Schultheiss & Davis, 2015](#)). In addition, as a normal component of adolescent development, concerns about future academic and career achievement tend to increase ([Vignoli, 2015](#)).

### **Anxiety and career exploration**

As previously discussed with CAI, there are individual differences in the degree of job exploration. According to the theoretical arguments provided by [Blustein, Prezioso, and Schultheiss \(1995\)](#), contemplating a career should induce anxiety because it necessitates entering unfamiliar surroundings. As a result, we may anticipate that nervous individuals will study their work surroundings less than somewhat anxious individuals to keep their anxiety from increasing. It should be related positively to anxiety because discovering new professional contexts and environments can also induce anxiety. Few studies have been conducted in this area, and the results are inconsistent. In several studies examining the relationship between trait anxiety and CAE, anxiety was either negatively associated with CAE or directly related to certain exploration activities ([Emmanuelle, 2009](#); [Vignoli, 2015](#)). Other studies examining the relationship between professional anxiety and environment exploration found that when persons felt more nervous, they tended to explore their surroundings more ([Blustein & Phillips, 1988](#)).

Information search studies have shown that a negative impact affects decision performance by focusing on fewer alternatives. According to additional research, negative emotion improves performance by focusing on every aspect ([Blay, Kadous, & Sawers, 2012](#)). According to [Blay et](#)

al. (2012), the detrimental effects differ based on the circumstances. Negatively impacted by an uncertain environment, decision-makers concentrate on pertinent information and engage in approaches that actively reduce uncertainty. According to Eysenck (2013), worry causes people to search for threatening information with greater concentration. Exploring a vocational environment to choose a career is a tough and uncertain procedure, especially in light of the turbulent labor market. In this context, anxiety may be perceived favorably if it prompts decision-makers to focus on potentially hazardous aspects of potential vocations. In addition to being a pervasive and stable element of personality, anxiety appears integrally tied to the procedures required to select a job. This may drive kids to focus on career research to reduce stress in future school and CATA. The following research hypotheses are established based on prior discussion.

**H4:** The general career trait anxiety significantly moderates the relationship between career exploration and career indecision.

**H5:** The expected career anxiety significantly moderates the relationship between career exploration and career indecision.

### Research Framework Development

This study's major objective was to investigate the moderating effect of career trait anxiety (CATA) on the connection between career exploration (CAE) and career indecision (CI) (CAI). According to the research literature, a direct and indirect relationship exists between CATA, CAE, and CAI. Theoretical and empirical evidence from the scientific literature supports the notion that anxiety plays a central role in the association between CAE and CAI. In this study, CATA (general and expected career anxiety) was utilized as a moderating variable, CAE was used as an exogenous variable, and CAI was used as an endogenous variable, as predicted in Figure.1.

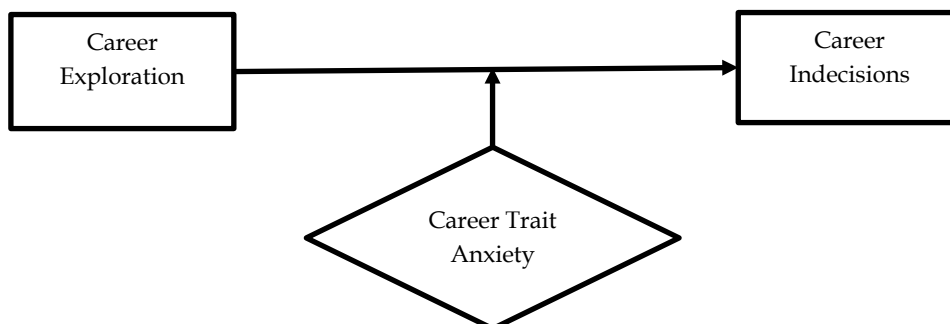


Figure.1: Conceptual Framework

### Research Design

The researcher adopted a causal research design and quantitative methodology to quantify the research variables and establish the causal relationship between the independent variables. The researcher also conducts descriptive analysis to assess the respondent's perception of all factors and the demographic profile of the sample population's characteristics. In addition, the research was performed using a cross-sectional design in which data were collected once, which was deemed adequate for the survey instrument (Mann, 2003).

### Research Instrument and Data Collection Procedure

Research on career indecision (CAI) led to the adoption of a validated set of 22 items (Degiovanni, Palix, & Pichon-Picard, 2005). The 22 items on the scale were retranslated into English by a native speaker already knowledgeable about the topic. The career exploration (CAE) was assessed with 24 items culled from the study of (Vignoli et al., 2005). In contrast, the general career trait anxiety (GETA) consisted of seven components drawn from the study (Bruchon-Schweitzer & Paulhan, 1993). It assesses "anxiety in general, independent of specific contexts." Expected career anxiety (EXCA) was evaluated using seven questions derived from the research (Vignoli & Mallet, 2012). The majority of these items were graded using a five-point Likert scale. The study population consisted of higher education students from all private university departments, with the individual as the unit of analysis. In this context, the survey instrument was distributed to higher education students attending public universities in Iraq using a convenient sample strategy. Self-administered questionnaires were provided to 500 higher education students. 350 surveys were returned, which constitutes a respectable response rate. The 150 questionnaires were not returned because most students were preoccupied, and some could not fill out the questionnaire correctly; several items were missing data. Therefore, this was considered a non-response.

### Research Findings

The study's findings consist of two perspectives, descriptive and inferential, which are discussed below.

#### Descriptive Statistics

Table 3 shows the mean and standard deviation for each of the study's important variables, including "career indecision (CAI), career exploration (CAE), general career trait anxiety (GETCA), and expected career anxiety (EXCA)." The mean and standard deviation of CAI is (M=4.210, SD=0.675), CAE mean and the standard deviation is (M=4.410, SD=0.612), GETCA mean and the standard deviation is (M=4.240, SD=0.734), and expected career anxiety mean, and the standard deviation is (M=4.237, SD=0.851). The mean values of all constructs reveal that all respondents provide responses that are above average. The descriptive values are predicted in the following Table.1 below.

Table 1

#### Descriptive Statistics

	Mean	Standard Deviation
Career indecision (CAI)	4.210	0.675
Career exploration (CAE)	4.410	0.612
General career trait anxiety (GETCA)	4.240	0.734
Expected career anxiety (EXCA)	4.237	0.851

**Acronyms:** CAI-career indecision; CAE-career exploration; EXCA-expected career anxiety; GETCA-general trait career anxiety.

#### Inferential Statistics

In PLS-SEM analysis, the reliability and validity of the instruments and each component of the construct needed to be evaluated. The following Table offers outer loadings,

Cronbach's alpha, composite reliability, and extracted average variance for this purpose. Here, outer loading describes how each factor accounts for the variation of the variable. According to (Hair et al., 2017), factor loading must be greater than 0.70 for inclusion in the model. However, Mostafa, Mostafa, and Ismail (2021) and (Hair, Ringle, & Sarstedt, 2012) suggest that a factor should not be excluded from the model if it is rare and important unless it is greater than 0.50. Similarly, Table 1 displays the outer loadings of the research; each factor has a value greater than 0.70. Cronbach's alpha and composite reliability have also been used to determine the instrument's reliability. According to the research and practices of (Hair et al., 2012), Cronbach's alpha value should not be less than 0.70, and the same holds for composite reliability, which is synonymous with Cronbach's alpha. Moreover, Cronbach's alpha and Composite reliability values are less than 0.7, indicating that the instruments utilized in the study are dependable ways of repeatedly providing the same results. Moreover, the average variance extracted (AVE) has been used to assess the validity or convergent validity, which requires the constructs to be measured for what they were designed to measure, which means that if two of the constructs are theoretically related, then they should also be related (Alarcón, Sánchez, & De Olavide, 2015). Ghadi et al. (2012) conclude that instruments with an AVE larger than 0.5 are valid and adhere to convergent validity. Consequently, it has been found that the tools utilized in the paper are valid and dependable. The projected convergent validity results are shown in Table.2 below.

**Table.2**

*Convergent Validity*

	Coding's	Alpha	Factor loadings	CR	AVE
<b>Career Indecision</b>	CAI	0.818		0.838	0.664
	CAI1		0.826		
	CAI2		0.863		
	CAI3		0.896		
	CAI4		0.886		
	CAI5		0.82		
	CAI6		0.862		
	CAI7		0.826		
	CA8		0.866		
	CAI9		0.881		
	CAI10		0.863		
	CAI11		0.864		
	CAI12		0.863		
	CAI13		0.886		
	CAI14		0.829		
	CAI15		0.882		
	CAI16		0.893		
	CAI17		0.869		
	CAI18		0.863		
	CAI19		0.862		
	CAI20		0.823		
	CAI21		0.828		
CAI22		0.828			



	Coding's	Alpha	Factor loadings	CR	AVE
Career Exploration	CAE	0.810		0.816	0.886
	CAE1		0.898		
	CAE2		0.686		
	CAE3		0.838		
	CAE4		0.826		
	CAE5		0.906		
	CAE6		0.628		
	CAE7		0.896		
	CAE8		0.826		
	CAE9		0.822		
	CAE10		0.923		
	CAE11		0.829		
	CAE12		0.906		
	CAE13		0.816		
	CAE14		0.832		
	CAE15		0.886		
	CAE16		0.919		
	CAE17		0.836		
	CAE18		0.862		
CAE19		0.832			
Expected career anxiety	EXCA	0.831		0.836	0.696
	EXCA1		0.886		
	EXCA2		0.839		
	EXCA3		0.869		
	EXCA4		0.83		
	EXCA5		0.868		
	EXCA6		0.866		
General trait career anxiety	GETCA	0.831		0.836	0.688
	GETCA1		0.886		
	GETCA2		0.862		
	GETCA3		0.682		
	GETCA4		0.880		
	GETCA5		0.812		
	GETCA6		0.889		
	GETCA7		0.890		

**Acronyms:** CAI-career indecision; CAE-career exploration; EXCA-expected career anxiety; GETCA-general trait career anxiety.

In addition, while referring to the instruments' discriminant validity, the instrument's distinctiveness in measurement is meant. The essential principle of discriminant validity is that two unconnected constructs are unrelated. It implies that two instruments that measure two different concepts that are theoretically distinct should not be connected. It also implies that each instrument should measure a particular notion (Ab Hamid, Sami, & Sidek, 2017). To establish discriminant validity, the Heterotrait-Monotrait ratio (HTMT) has been utilized, and according to Henseler, Ringle, and Sarstedt (2015), the HTMT ratio must be less than 0.90 for discriminant validity to be considered.

In contrast, the HTMT ratio for all constructs is smaller than 0.9, indicating discriminant validity. In the following Table.3, all of the values are predicted.

**Table.3**

*Discriminant validity*

Constructs	CAI	CAE	EXCA	GETCA
CAI				
CAE	0.164			
EXCA	0.362	0.443		
GETCA	0.194	0.064	0.449	

**Acronyms:** CAI-career indecision; CAE-career exploration; EXCA-expected career anxiety; GETCA-general trait career anxiety.

In addition to the measurement model, the coefficient of determination has also been referred to as R squared to describe the extent to which independent variables explain regress. The R-Square of the simple PLS model for endogenous variables is 0.354, indicating that exogenous variables may explain 35.4% of them. However, the variance that could not be accounted for remains the model's residual and can only be explained by additional variables. Additionally, regression results indicate that career exploration (CAE) has a negatively and statistically significant effect on career indecision (CAI). This effect demonstrates that as the CAE of the students is increased, so is the CAI because it is suggested in the literature that key professional judgments are approaching in CAE, which is typically viewed as a prominent activity that reduces the importance of unimportant career decisions (Harren, 1979; Super, 1957). Alternatively, general career anxiety (GETCA) positively and significantly affects the CAI, which also supports the hypothesized concept. Consistent with previous studies on this relationship, the present study discovered a positive, considerable link between GETCA and adolescent CAI (Campagna & Curtis, 2007). The expected career anxiety (EXCA) has a positive and statistically significant effect on CAE, supporting the stated premise that as EXCA increases, so does CAI. The limited earlier study on anxiety and job indecision indicated that career anxiety was connected with ambiguity over one's career choice or concern over being uncertain (Fuqua & Hartman, 1983). The findings support the previous study that investigated just career-related anxiety. These results indicate a correlation between a high degree of anxiety and a high level of CAI, regardless of whether anxiety is seen as a stable personality trait or an emotion connected with the professional development process (Saka et al., 2008). Consequently, these two types of worry may be brought on by CAI (Coon, 2008).

The findings indicate that overall career trait anxiety moderated the link between career exploration (CAE) and career indecision (CAI) (CATA). The results reveal that the GECTA regulated the link between CAE and CAI favorably and substantially, which confirms the proposed hypothesis. The expected career anxiety moderates the link between CAE and CAI in a favorable and significant way, supporting the hypothesized hypothesis. Blustein et al. (1995) discuss in the existing research, joining a new employment environment and exploring strange regions and work environments can generate anxiety. This fear will likely diminish the attention provided to career decision-making tasks since it tends to increase attentional focus on

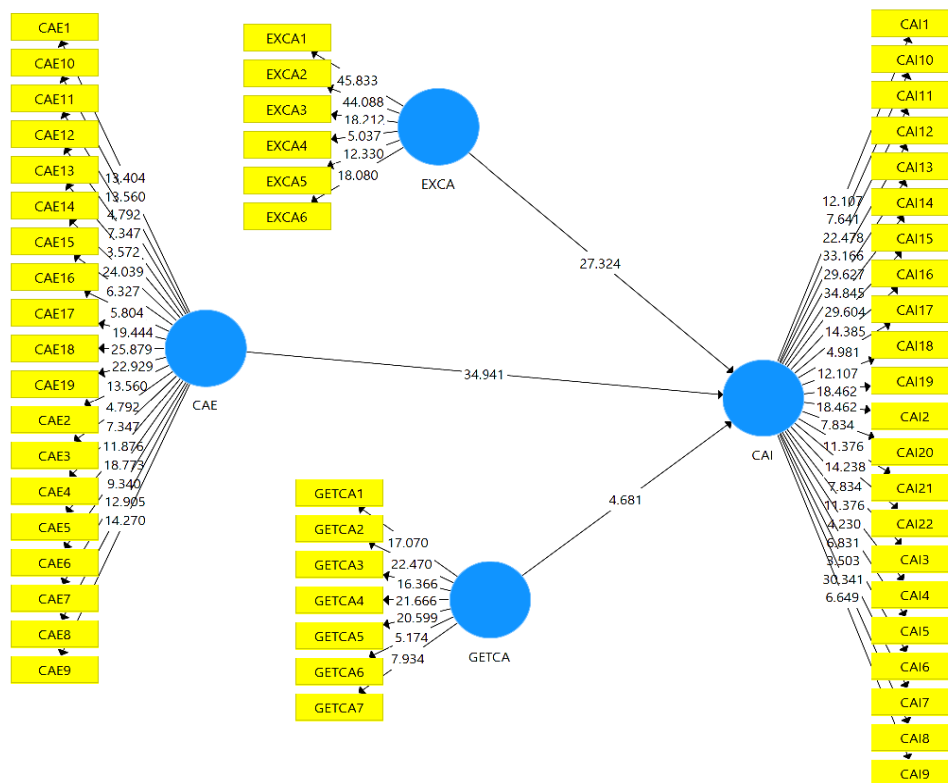
their CAE. This procedure will assist the individual in acquiring the knowledge and skills necessary for making professional decisions (Fuqua et al., 1987). Significant obstacles in choosing a career may increase adolescent anxiety, motivating them to study their career environment more frequently to fill in knowledge gaps (Brown et al., 2012). Therefore, career trait anxiety is a crucial moderator that could assist students in exploring their career options and making the correct decisions. The projected outcomes are displayed in Table.4 and Figures.2 and 3 below.

**Table.4**

*Direct and Indirect effect results*

	Original Sample	Sample Mean	Standard Deviation	T Statistics	P Values	Conclusion
CAE -> CAI	0.701	0.704	0.02	34.941	0.000	Supported
EXCA -> CAI	0.377	0.374	0.014	27.324	0.000	Supported
GETCA -> CAI	0.067	0.068	0.014	4.681	0.000	Supported
CAE*EXCA -> CAI	0.702	0.703	0.02	36.28	0.000	Supported
CAE*GETCA -> CAI	0.375	0.374	0.014	27.063	0.000	Supported

**Acronyms:** CAI-career indecision; CAE-career exploration; EXCA-expected career anxiety; GETCA-general trait career anxiety.



**Figure.2:** Direct effect model

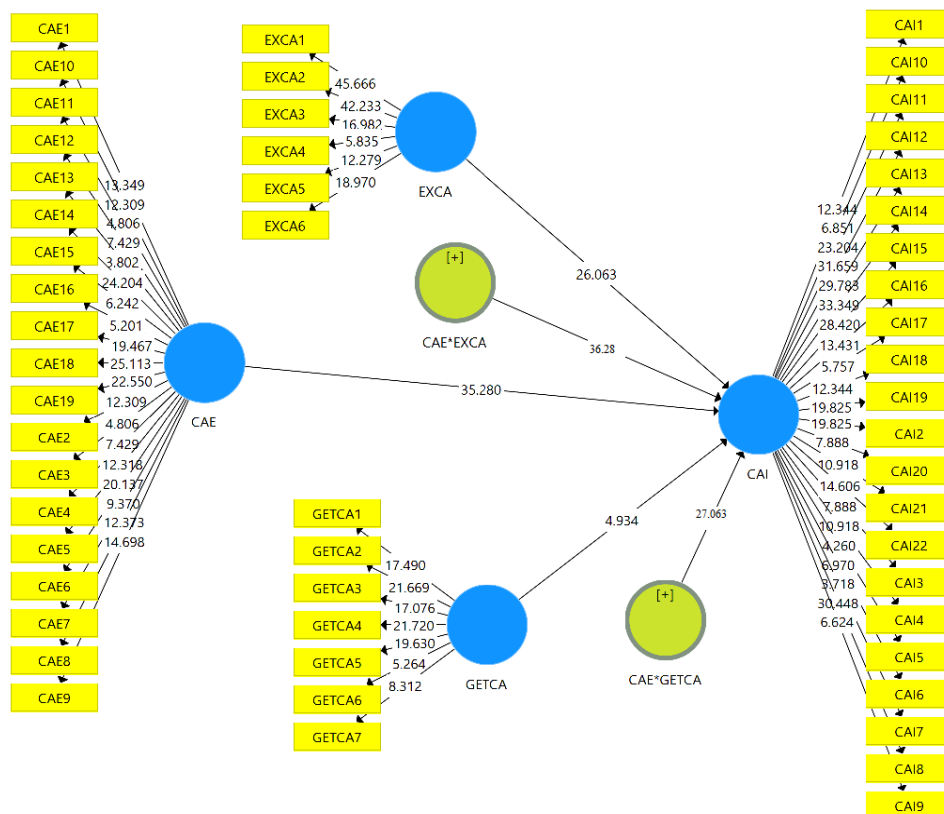


Figure.3: Moderating effect Model

### Implications

The current study reveals that the relationship between CAE and CAI, as well as the mediated variable fear of failure and adolescents' general trait anxiety, remains to be evaluated. According to Blustein (2013) research, the primary causes of concern are the work environment, the exploration of unskilled locals, and the introduction to a new operational setting. The amount of anxiety was reduced by increasing emphasis on the job environment and on oneself. Therefore, it is vital to focus on professional choice-making. According to Hartman and Fuqua (1983), this procedure eschews applying skills and knowledge in professional decision-making.

On the other hand, the obstacles faced in inclination and vacation may increase the stress level (Brown et al., 2012); therefore, to cover the information gap, it aids adolescents in exploring their occupations more quickly. Contradictions relate to the individual's personality, connection, and identity (Lam & Santos, 2018). Teenagers could attend therapy sessions to resolve their problems. Using their interpersonal skills, counselors could assist adolescents in coping with the risk of uncertainty, allowing them to feel more supported by their peers.

In earlier studies, the significance of emotion regulation in career development and anxiety is highlighted (Braunstein-Bercovitz et al., 2012). Counseling may be utilized for supportive relationships with peers, parents, young adults, and friends. This involves self-care and stress management through relaxation techniques. According to research, personal and emotional counseling has been shown to minimize unproductive emotions and muddled thoughts (Rottinghaus, Jenkins, & Jantzer, 2009).

This element is extensive and less stable than trait anxiety, and psychiatric therapies can alter the responsiveness of a career to trait anxiety. The treatment comprises cognitive-behavioral therapy. These techniques are effective in career counseling to eliminate decision-making anxiety issues (Daniels et al., 2009). According to studies Daniels et al. (2011); Luzzo, James, and Luna (1996), attribution Retraining-based therapies could lower anxiety by employing self-helping attribution, self-defeating attribution, and adaptive attribution techniques, as well as restructuring beliefs.

### Future Directions

This study uncovered numerous shortcomings despite a comprehensive examination of CAE, career trait anxiety, and job indecision. Because the data were acquired from a single source, it is impossible to determine the causal relationships between professional curiosity, adolescent fear, and CAI. There is a need for more longitudinal data collection. Longitudinal research will aid in exploring the adolescent CAE concept for professional choices. For future research, there is a need to examine how adolescents utilize this information for career development. The study's limited sample size has been obtained. For future research, it is possible to collect data on both males and females from populations of the same size. Future research should examine the job search process in detail and determine how anxious adolescents are deciding on a career to handle this information. This study's scope may be limited by the small sample size and young age of the participants. In future studies designed to establish the validity of these findings, larger samples of teenagers (both boys and girls) and emerging adults should be employed. The study was conducted on private sector universities of Iraq, whose environment differs from that of public sector universities; therefore, future research on public sector universities could be conducted to determine the variation in outcomes.

### References

- Ab Hamid, M., Sami, W., & Sidek, M. M. (2017). Discriminant validity assessment: Use of Fornell & Larcker criterion versus HTMT criterion. *Journal of Physics: Conference Series*, 890(1), 012163. <https://doi.org/10.1088/1742-6596/890/1/012163>
- Alarcón, D., Sánchez, J. A., & De Olavide, U. (2015). Assessing convergent and discriminant validity in the ADHD-R IV rating scale: User-written commands for Average Variance Extracted (AVE), Composite Reliability (CR), and Heterotrait-Monotrait ratio of correlations (HTMT). In *Spanish STATA meeting* (Vol. 39). [https://www.guiyastudio.com/meeting/spain15/abstracts/materials/spain15\\_alarcon.pdf](https://www.guiyastudio.com/meeting/spain15/abstracts/materials/spain15_alarcon.pdf)
- Barret, C., Ryk, F., & Volle, N. (2014). Enquête 2013 auprès de la Génération 2010-Face à la crise, le fossé se creuse entre niveaux de diplôme. *Céreq Bref*, 319, 8. <https://hal.archives-ouvertes.fr/hal-03336053/>
- Betz, N. E., & Vuyten, K. K. (1997). Efficacy and outcome expectations influence career exploration and decidedness. *The Career Development Quarterly*, 46(2), 179-189. <https://doi.org/10.1002/j.2161-0045.1997.tb01004.x>

- Blay, A. D., Kadous, K., & Sawers, K. (2012). The impact of risk and affect on information search efficiency. *Organizational Behavior and Human Decision Processes*, 117(1), 80-87. <https://doi.org/10.1016/j.obhdp.2011.09.003>
- Blustein, D. (2013). *The psychology of working: A new perspective for career development, counseling, and public policy*. Routledge. <https://doi.org/10.4324/9780203935477>
- Blustein, D. L. (1992). Applying current theory and research in career exploration to practice. *The Career Development Quarterly*, 41(2), 174-183. <https://doi.org/10.1002/j.2161-0045.1992.tb00368.x>
- Blustein, D. L., Pauling, M. L., DeMania, M. E., & Faye, M. (1994). Relation between exploratory and choice factors and decisional progress. *Journal of Vocational behavior*, 44(1), 75-90. <https://doi.org/10.1006/jvbe.1994.1005>
- Blustein, D. L., & Phillips, S. D. (1988). Individual and contextual factors in career exploration. *Journal of Vocational behavior*, 33(2), 203-216. [https://doi.org/10.1016/0001-8791\(88\)90056-5](https://doi.org/10.1016/0001-8791(88)90056-5)
- Blustein, D. L., Prezioso, M. S., & Schultheiss, D. P. (1995). Attachment theory and career development: Current status and future directions. *The Counseling Psychologist*, 23(3), 416-432. <https://doi.org/10.1177/0011000095233002>
- Braunstein-Bercovitz, H., Benjamin, B. A., Asor, S., & Lev, M. (2012). Insecure attachment and career indecision: Mediating effects of anxiety and pessimism. *Journal of Vocational behavior*, 81(2), 236-244. <https://doi.org/10.1016/j.jvb.2012.07.009>
- Brown, S. D., Hacker, J., Abrams, M., Carr, A., Rector, C., Lamp, K., Telander, K., & Siena, A. (2012). Validation of a four-factor model of career indecision. *Journal of Career assessment*, 20(1), 3-21. <https://doi.org/10.1177/1069072711417154>
- Brown, S. D., & Rector, C. C. (2008). Conceptualizing and diagnosing problems in vocational decision making. In *Handbook of counseling psychology, 4th ed.* (pp. 392-407). John Wiley & Sons, Inc. <https://psycnet.apa.org/record/2008-04102-023>
- Bruchon-Schweitzer, M., & Paulhan, I. (1993). *Le manuel du STAI-Y de CD Spielberger, adaptation française*. Paris: ECPA.
- Bullock-Yowell, E., Peterson, G. W., Reardon, R. C., Leierer, S. J., & Reed, C. A. (2011). Relationships among career and life stress, negative career thoughts, and career decision state: A cognitive information processing perspective. *The Career Development Quarterly*, 59(4), 302-314. <https://doi.org/10.1002/j.2161-0045.2011.tb00071.x>
- Campagna, C. G., & Curtis, G. J. (2007). So worried I don't know what to be: Anxiety is associated with increased career indecision and reduced career certainty. *Journal of Psychologists and Counsellors in Schools*, 17(1), 91-96. <https://doi.org/10.1375/ajgc.17.1.91>
- Cheung, R. (2015). Fostering career exploration. In *APA handbook of career intervention, Vol. 2. Applications* (pp. 157-169). American Psychological Association. <https://doi.org/10.1037/14439-012>
- Coon, K. L. (2008). *Predicting career decision-making difficulties among undergraduate students: the role of career decision making self efficacy, career optimism, and coping*. Southern Illinois University at Carbondale. <https://www.proquest.com/openview/69832ecc18391e166d5f6dadfaad8814>
- Crites, J. O. (1974). Major contribution career counseling: A review of major approaches. *The Counseling Psychologist*, 4(3), 3-23. <https://doi.org/10.1177/001100007400400302>
- Crites, J. O., & Taber, B. J. (2002). Appraising adults' career capabilities: Ability, interest, and personality. In *Adult career development: Concepts, issues and practices* (pp. 120-138). National Career Development Association. <https://psycnet.apa.org/record/2003-02552-007>

- Daniels, L. M., Stewart, T. L., Stupnisky, R. H., Perry, R. P., & LoVerso, T. (2011). Relieving career anxiety and indecision: The role of undergraduate students' perceived control and faculty affiliations. *Social Psychology of Education, 14*(3), 409-426. <https://doi.org/10.1007/s11218-010-9151-x>
- Daniels, L. M., Stupnisky, R. H., Pekrun, R., Haynes, T. L., Perry, R. P., & Newall, N. E. (2009). A longitudinal analysis of achievement goals: From affective antecedents to emotional effects and achievement outcomes. *Journal of Educational Psychology, 101*(4), 948. <https://psycnet.apa.org/doiLanding?doi=10.1037/a0016096>
- Degiovanni, D., Palix, M., & Pichon-Picard, H. (2005). *Relation entre attachement, identité et indécision vocationnelle [The relationship between attachment, identity and career indecision]*. (Unpublished master's thesis). University of Provence, Aix-en-Provence, France.
- Emmanuelle, V. (2009). Inter-relationships among attachment to mother and father, self-esteem, and career indecision. *Journal of Vocational behavior, 75*(2), 91-99. <https://doi.org/10.1016/j.jvb.2009.04.007>
- Endler, N. S., Parker, J. D., Bagby, R. M., & Cox, B. J. (1991). Multidimensionality of state and trait anxiety: factor structure of the Endler Multidimensional Anxiety Scales. *Journal of personality and social psychology, 60*(6), 919. <https://psycnet.apa.org/doiLanding?doi=10.1037%2F0022-3514.60.6.919>
- Erikson, E. H. (1972). Adolescence et crise: la quête de l'identité. *Nouvelle bibliothèque scientifique*. <http://eduq.info/xmlui/handle/11515/12270>
- Eysenck, M. W. (2013). *Anxiety: The cognitive perspective*. Psychology Press. <https://doi.org/10.4324/9780203775677>
- Flum, H., & Blustein, D. L. (2000). Reinvigorating the study of vocational exploration: A framework for research. *Journal of Vocational behavior, 56*(3), 380-404. <https://doi.org/10.1006/jvbe.2000.1721>
- Fuqua, D. R., & Hartman, B. W. (1983). Differential Diagnosis and Treatment of Career Indecision. *The Personnel and Guidance Journal, 62*(1), 27-29. <https://doi.org/10.1111/j.2164-4918.1983.tb00112.x>
- Fuqua, D. R., Newman, J. L., & Seaworth, T. B. (1988). Relation of state and trait anxiety to different components of career indecision. *Journal of counseling psychology, 35*(2), 154. <https://psycnet.apa.org/doi/10.1037/0022-0167.35.2.154>
- Fuqua, D. R., Seaworth, T. B., & Newman, J. L. (1987). The relationship of career indecision and anxiety: A multivariate examination. *Journal of Vocational behavior, 30*(2), 175-186. [https://doi.org/10.1016/0001-8791\(87\)90017-0](https://doi.org/10.1016/0001-8791(87)90017-0)
- Gati, I., Krausz, M., & Osipow, S. H. (1996). A taxonomy of difficulties in career decision making. *Journal of counseling psychology, 43*(4), 510. <https://psycnet.apa.org/doi/10.1037/0022-0167.43.4.510>
- Germeijs, V., Verschueren, K., & Soenens, B. (2006). Indecisiveness and high school students' career decision-making process: Longitudinal associations and the mediational role of anxiety. *Journal of counseling psychology, 53*(4), 397. <https://psycnet.apa.org/doi/10.1037/0022-0167.53.4.397>
- Ghadi, I., Alwi, N. H., Bakar, K. A., & Talib, O. (2012). Construct Validity Examination of Critical Thinking Dispositions for Undergraduate Students in University Putra Malaysia. *Higher Education Studies, 2*(2), 138-145. <http://merr.utm.my/id/eprint/4982>
- Goodstein, L. D. (1965). Behavior theoretical views of counseling. In *Theories of counseling* (pp. 140-192). McGraw-Hill New York.

- Gribben, C. A., & Keitel, M. A. (1992). Career Indecision, Anxiety, and Social Problem Solving: A Path Analytic Model. In *Manual Convention of the American Psychologist & Association*, Washington DC. <https://research.library.fordham.edu/dissertations/AAI9136320/>
- Hair, J., Hollingsworth, C. L., Randolph, A. B., & Chong, A. Y. L. (2017). An updated and expanded assessment of PLS-SEM in information systems research. *Industrial management & data systems*. <https://doi.org/10.1108/IMDS-04-2016-0130>
- Hair, J. F., Ringle, C. M., & Sarstedt, M. (2012). Partial least squares: the better approach to structural equation modeling? *Long range planning*, 45(5-6), 312-319. [https://papers.ssrn.com/Sol3/papers.cfm?abstract\\_id=2227601](https://papers.ssrn.com/Sol3/papers.cfm?abstract_id=2227601)
- Harren, V. A. (1979). A model of career decision making for college students. *Journal of Vocational behavior*, 14(2), 119-133. [https://doi.org/10.1016/0001-8791\(79\)90065-4](https://doi.org/10.1016/0001-8791(79)90065-4)
- Hartman, B. W., & Fuqua, D. R. (1983). Career indecision from a multidimensional perspective: A reply to Grites. *The School Counselor*, 30(5), 340-346. <https://www.jstor.org/stable/23900751>
- Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation modeling. *Journal of the academy of marketing science*, 43(1), 115-135. <https://doi.org/10.1007/s11747-014-0403-8>
- Kimes, H. G., & Troth, W. A. (1974). Relationship of trait anxiety to career decisiveness. *Journal of counseling psychology*, 21(4), 277. <https://psycnet.apa.org/doi/10.1037/h0037611>
- Kirdök, O., & Korkmaz, O. (2018). Dimensions of Personality and Emotional Intelligence as Predictors of High School Students' Career Decision Difficulties. *Educational Research and Reviews*, 13(12), 495-502. <https://academicjournals.org/journal/ERR/article-full-text-pdf/B61930157526>
- Kleiman, T., Gati, I., Peterson, G., Sampson, J., Reardon, R., & Lenz, J. (2004). Dysfunctional thinking and difficulties in career decision making. *Journal of Career assessment*, 12(3), 312-331. <https://doi.org/10.1177/1069072704266673>
- Lam, M., & Santos, A. (2018). The impact of a college career intervention program on career decision self-efficacy, career indecision, and decision-making difficulties. *Journal of Career assessment*, 26(3), 425-444. <https://doi.org/10.1177/1069072717714539>
- Luzzo, D. A., James, T., & Luna, M. (1996). Effects of attributional retraining on the career beliefs and career exploration behavior of college students. *Journal of counseling psychology*, 43(4), 415. <https://psycnet.apa.org/record/1996-00490-007>
- Mann, C. (2003). Observational research methods. Research design II: cohort, cross sectional, and case-control studies. *Emergency medicine journal*, 20(1), 54-60. <https://emj.bmj.com/content/20/1/54.short>
- Mendonca, J. D., & Siess, T. F. (1976). Counseling for indecisiveness: Problem-solving and anxiety-management training. *Journal of counseling psychology*, 23(4), 339. <https://psycnet.apa.org/doi/10.1037/0022-0167.23.4.339>
- Mostafa, A., Mostafa, N. S., & Ismail, N. (2021). Validity and reliability of a COVID-19 stigma scale using exploratory and confirmatory factor analysis in a sample of Egyptian physicians: E16-COVID19-S. *International Journal of Environmental Research and Public Health*, 18(10), 5451. <https://doi.org/10.3390/ijerph18105451>
- Neice, D. E., & Bradley, R. W. (1979). Relationship of age, sex, and educational groups to career decisiveness. *Journal of Vocational behavior*, 14(3), 271-278. [https://doi.org/10.1016/0001-8791\(79\)90055-1](https://doi.org/10.1016/0001-8791(79)90055-1)



- Newman, J. L., Gray, E. A., & Fuqua, D. R. (1999). The relation of career indecision to personality dimensions of the California Psychological Inventory. *Journal of Vocational behavior*, 54(1), 174-187. <https://doi.org/10.1006/jvbe.1998.1656>
- O'Hare, M. M., & Tamburri, E. (1986). Coping as a moderator of the relation between anxiety and career decision making. *Journal of counseling psychology*, 33(3), 255. <https://psycnet.apa.org/doi/10.1037/0022-0167.33.3.255>
- Osipow, S. H. (1990). Convergence in theories of career choice and development: Review and prospect. *Journal of Vocational behavior*, 36(2), 122-131. [https://doi.org/10.1016/0001-8791\(90\)90020-3](https://doi.org/10.1016/0001-8791(90)90020-3)
- Osipow, S. H. (1999). Assessing career indecision. *Journal of Vocational behavior*, 55(1), 147-154. <https://doi.org/10.1006/jvbe.1999.1704>
- Papay, J. P., & Spielberger, C. D. (1986). Assessment of anxiety and achievement in kindergarten and first-and second-grade children. *Journal of abnormal child psychology*, 14(2), 279-286. <https://doi.org/10.1007/BF00915446>
- Papini, D., Rogman, L., & Perruca, B. (2008). Diplômés mais déclassés, les jeunes des pays de l'Europe du Sud cumulent les difficultés. *Le Monde*.
- Park, K., Woo, S., Park, K., Kyea, J., & Yang, E. (2017). The mediation effects of career exploration on the relationship between trait anxiety and career indecision. *Journal of Career Development*, 44(5), 440-452. <https://doi.org/10.1177/0894845316662346>
- Parker, P. C., Perry, R. P., Chipperfield, J. G., Hamm, J. M., Daniels, L. M., & Dryden, R. P. (2022). Adjustment and acceptance beliefs in achievement settings: Implications for student wellbeing. *Social Psychology of Education*, 25(5), 1031-1049. <https://doi.org/10.1007/s11218-022-09717-3>
- Porfeli, E. J., & Skorikov, V. B. (2010). Specific and diverse career exploration during late adolescence. *Journal of Career assessment*, 18(1), 46-58. <https://doi.org/10.1177/1069072709340528>
- Prideaux, L.-A., & Creed, P. A. (2001). Career maturity, career decision-making self-efficacy and career indecision: A review of the accrued evidence. *Australian Journal of Career Development*, 10(3), 7-12. <https://doi.org/10.1177/103841620101000303>
- Reed, M. B., Bruch, M. A., & Haase, R. F. (2004). Five-factor model of personality and career exploration. *Journal of Career assessment*, 12(3), 223-238. <https://doi.org/10.1177/1069072703261524>
- Rottinghaus, P. J., Jenkins, N., & Jantzer, A. M. (2009). Relation of depression and affectivity to career decision status and self-efficacy in college students. *Journal of Career assessment*, 17(3), 271-285. <https://doi.org/10.1177/1069072708330463>
- Saka, N., Gati, I., & Kelly, K. R. (2008). Emotional and personality-related aspects of career-decision-making difficulties. *Journal of Career assessment*, 16(4), 403-424. <https://doi.org/10.1177/1069072708318900>
- Saks, A. M., & Ashforth, B. E. (2000). Change in job search behaviors and employment outcomes. *Journal of Vocational behavior*, 56(2), 277-287. <https://doi.org/10.1006/jvbe.1999.1714>
- Santos, P. J., Ferreira, J. A., & Gonçalves, C. M. (2014). Indecisiveness and career indecision: A test of a theoretical model. *Journal of Vocational behavior*, 85(1), 106-114. <https://doi.org/10.1016/j.jvb.2014.05.004>
- Savickas, M. L., Nota, L., Rossier, J., Dauwalder, J.-P., Duarte, M. E., Guichard, J., Soresi, S., Van Esbroeck, R., & Van Vianen, A. E. (2009). Life designing: A paradigm for career construction in the 21st century. *Journal of Vocational behavior*, 75(3), 239-250. <https://doi.org/10.1016/j.jvb.2009.04.004>

- Schultheiss, D. E., & Davis, B. L. (2015). Immigrant workers: Career concerns and barriers. In *APA handbook of career intervention, Vol. 1. Foundations* (pp. 259-277). American Psychological Association. <https://doi.org/10.1037/14438-015>
- Super, D. E. (1957). *The psychology of careers; an introduction to vocational development*. Harper & Bros. <https://psycnet.apa.org/record/1957-06230-000>
- Van Matre, G., & Cooper, S. (1984). Concurrent Evaluation of Career Indecision and Indecisiveness. *The Personnel and Guidance Journal*, 62(10), 637-639. <https://doi.org/10.1111/j.2164-4918.1984.tb00143.x>
- Vignoli, E. (2015). Career indecision and career exploration among older French adolescents: The specific role of general trait anxiety and future school and career anxiety. *Journal of Vocational behavior*, 89, 182-191. <https://doi.org/10.1016/j.jvb.2015.06.005>
- Vignoli, E., Croity-Belz, S., Chapeland, V., de Fillipis, A., & Garcia, M. (2005). Career exploration in adolescents: The role of anxiety, attachment, and parenting style. *Journal of Vocational behavior*, 67(2), 153-168. <https://doi.org/10.1016/j.jvb.2004.08.006>
- Vignoli, E., & Mallet, P. (2012). Les peurs des adolescents concernant leur avenir scolaire et professionnel: structure et variations selon le niveau scolaire, le sexe et la classe sociale. *Les cahiers internationaux de psychologie sociale*. <https://hal.archives-ouvertes.fr/hal-03636218/>
- Wille, B., Beyers, W., & De Fruyt, F. (2012). A transactional approach to person-environment fit: Reciprocal relations between personality development and career role growth across young to middle adulthood. *Journal of Vocational behavior*, 81(3), 307-321. <https://doi.org/10.1016/j.jvb.2012.06.004>