

# Self-Focused Attention and Career Anxiety: The Mediating Role of Career Adaptability

Yun-Jeong Shin and Ji-Yeon Lee

The purpose of this study was to examine how 2 forms of self-focused attention, self-reflection and self-rumination, influence career anxiety. The authors hypothesized that the association between these 2 types of self-focused attention and career anxiety would be mediated by career adaptability on the basis of a career construction model of adaptation. The participants were 326 undergraduate students in South Korea. The results of this study supported the hypothesized mediation model by indicating significant indirect effects of self-reflection and self-rumination on career anxiety via career adaptability. The direct effect of self-rumination on career anxiety was significant ( $B = .44, p < .01$ ), but the direct effect of self-reflection on career anxiety was not significant ( $B = -.05, p > .05$ ). The authors discuss implications for counselors to help college students manage career anxiety by encouraging and supporting increased career adaptability. Future research to examine the cross-cultural validity of the current findings is needed.

*Keywords:* self-focused attention, self-reflection, self-rumination, career adaptability, career anxiety

Regardless of developmental stage or job status, individuals often experience anxiety about their career paths (Chartrand, Robbins, Morril, & Boggs, 1990; Crites, 1969; Saka, Gati, & Kelly, 2008). *Career anxiety* refers to negative emotions experienced before or during various stages of the career decision-making process and during job performance (Fouad, 2007; Saka et al., 2008). Experiences of career anxiety are especially common among college students, regardless of their ethnic and cultural backgrounds (Gordon & Steele, 2015; Pisarik, Rowell, & Thompson, 2017). A certain amount of anxiety can help individuals prepare for career-related tasks (Cho, 2008; Harren, 1979). However, if the anxiety is overwhelming and excessive, it is no longer helpful. Thus, managing career anxiety is becoming ever more essential for adapting to career-related tasks and challenges.

It is important to understand the emotional aspects of the career exploration process, such as career anxiety, because emotions affect how individuals approach the career-planning and decision-making process. Previous studies have supported links between career anxiety and career indecision (Fuqua, Seaworth, & Newman, 1987; Vignoli, 2015). Career

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anxiety is also associated with premature termination in career counseling (Spokane, 1991) because it can cause people to make hasty career decisions to relieve anxiety.

Given the unpleasant consequences of career anxiety, researchers have focused on its antecedents to provide effective interventions (Daniels, Stewart, Stupnisky, Perry, & LoVerso, 2011). One factor that could escalate anxiety and diminish capability for self-regulation is self-focused attention (Daniels et al., 2011; Feiler & Powell, 2016). Therefore, we examined self-focused attention as it relates to career anxiety using a career construction model of adaptation (Savickas, 2013).

## Self-Focused Attention

Self-focused attention denotes self-referent awareness of internally generated information (Ingram, 1990). Self-focused attention is attention directed internally, such as awareness of physical states, thoughts, and emotions, including one's beliefs and attitudes (Carver & Scheier, 1998; Ingram, 1990). Self-focused attention is not a pathological process in itself. There are two types of dispositional self-focus: *self-reflection*, which is adaptive, and *self-rumination*, which is maladaptive (Mor & Winquist, 2002; Trapnell & Campbell, 1999). Individuals are likely to have a natural tendency to use self-reflection to attend to their inner experiences, and it may lead to greater authenticity and satisfaction with their careers and themselves (Trapnell & Campbell, 1999). However, individuals can also self-ruminate by being too self-conscious and self-absorbed as they continuously wonder what they could do differently to achieve better outcomes within the career development process (Lengelle, Luken, & Meijers, 2016; Trapnell & Campbell, 1999). Thus, self-reflection should have a negative association and self-rumination should have a positive association with career anxiety.

Self-focused attention has been well studied within the literature on social anxiety disorder (Schwarzer & Wicklund, 2015; Vriends, Meral, Bargas-Avila, Stadler, & Bögels, 2017). This disorder is characterized by fearful feelings related to being observed and criticized by others and the dysfunctional belief that people will find flaws in oneself and behave in ways to embarrass, undervalue, or humiliate oneself (American Psychiatric Association, 2013; Clark & Wells, 1995).

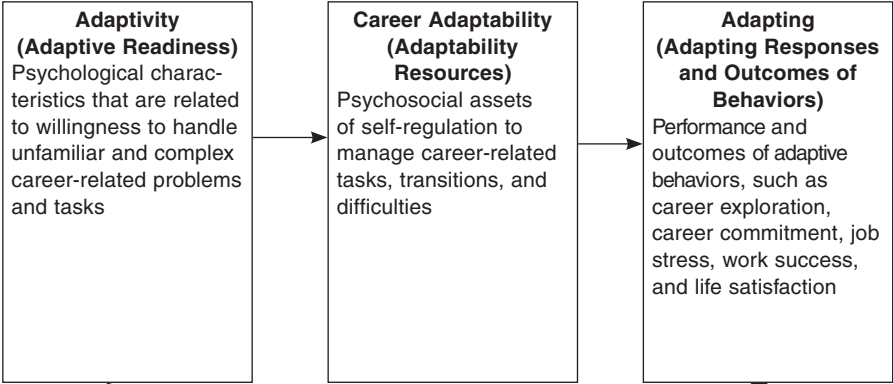
Social anxiety is conceptually distinct from career anxiety, yet there are many common characteristics between them. Similar to career anxiety, social anxiety has as a core factor the desire to deliver a positive image of oneself to others and to show one's potential abilities to perform tasks (Leary, 1983). Clark and Wells (1995) suggested a model of social phobia and anxiety that involves a shift in attention processing to the self, including detailed observation and monitoring of the self for managing self-presentation in socially fearful and anxiety-producing situations. Career decision-making processes require individuals to focus on themselves by observing, self-reflecting, and monitoring themselves and their fit within an uncertain job world. Therefore, the difficulties in shifting attention processing could affect individuals with career anxiety as they do individuals with social anxiety. Although a considerable amount of research has investigated social anxiety disorder and its relationship to self-focused attention on the basis of Clark and Wells's

model (Gregory & Peters, 2017; Jakymin & Harris, 2011; Spurr & Stopa, 2002; Thurston, Goldin, Heimber, & Gross, 2017), few studies have assessed the relationship between self-focused attention and career anxiety. Thus, we aimed to examine the mechanism by which adaptive (i.e., self-reflection) and maladaptive (self-rumination) self-focused attention affects career anxiety.

In addition, using the career construction model of adaptation (Hirschi, Hermann, & Keller, 2015; Rudolph, Lavigne, & Zacher, 2017; Savickas, 2013), we explored the mechanism by which the two forms of self-focused attention directly and indirectly influence management of career anxiety. As noted earlier, failure in adapting to expected and unexpected career-related challenges and tasks could cause individuals to experience career anxiety, which could lead to negative career and mental health outcomes. Thus, from the perspective of career adaptation, we explored how the two aspects of self-focused attention relate to social anxiety.

**Career Construction Model of Adaptation**

The career construction model of adaptation depicted in Figure 1 proposes that *career adaptability* is a psychosocial construct comprising specific attitudes, beliefs, and competencies that shape how individuals synthesize their vocational self-concepts with work roles to make career-related decisions (Savickas, 2013). The model holds that career adaptability influences career-related outcomes and behaviors (Savickas, 2013; Savickas & Porfeli, 2012). Career adaptability includes an individual’s self-regulation capabilities for dealing with uncertainty in career-related situations. Career adaptability is influenced by *adaptivity*, or *adaptive readiness*, which is the psychological trait of willingness to adapt to career changes and to face unfamiliar, complex, or ill-defined career-related issues (Rudolph et al., 2017; Savickas, 2013). According to the career



**FIGURE 1**

**The Career Construction Model of Adaptation  
(Savickas, 2005, 2013)**

construction model of adaptation (Hirschi et al., 2015; Rudolph et al., 2017; Savickas, 2013), traitlike psychological characteristics that are stable across situations and time, such as Big Five traits, locus of control, cognitive abilities, self-esteem, core self-evaluation, and future-oriented dispositional positivity (e.g., hope, optimism), are related to career adaptivity, or career adaptive readiness. Career adaptivity also directly, and indirectly via career adaptability, influences positive or negative career *adapting*, or adapting responses, which are defined as performance and outcomes of adaptive behaviors, such as career exploration, job satisfaction, work commitment, and job stress (Hirschi et al., 2015; Rudolph et al., 2017; Savickas, 2013).

Because career adaptivity is conceptualized as the degree of readiness to adapt to anticipated and unanticipated career-related changes, identifying specific dispositional characteristics is key to decreasing negatives outcomes, such as career anxiety. These characteristics should capture people's awareness of self-referent information, which leads to increased sensitivity to positive or negative stimuli and to preparation of self-regulation to address career-related challenges. Thus, cognitive flexibility and a future-oriented positive mindset have been investigated as relevant variables for career adaptivity, along with the five-factor model of personality traits (Rudolph et al., 2017). However, few studies have assessed the impact of self-focused attention, which is "an awareness of self-referent, internally generated information" (Ingram, 1990, p. 156), on the adaptation process in career development. Self-referent information includes past and current emotions, thoughts, beliefs, and events that influence and form the sense of self (Ingram, 1990). Self-focused attention may motivate individuals to use their available psychosocial capabilities to deal with complicated career-related situations. Thus, we examined the career construction model of adaptation and the effects of self-focused attention, as a measure of career readiness, on career anxiety via career adaptability.

## **Self-Focused Attention as Career Adaptivity**

Self-reflection, or generalized self-focused attention, is an adaptive form of self-attentiveness that involves exploring new possibilities or alternatives and shifting the focus of attention from negative and narrow perspectives to positive and broader views (Farber, 1989; Ingram, 1990; Trapnell & Campbell, 1999). Self-reflection is not significantly related to depression, anxiety, fear, or obsessive-compulsive symptoms (Chambers, Gullone, & Allen, 2009; Lee, 2011; Lee & Kwon, 2005; Watkins & Teasdale, 2004). Self-reflection is significantly related to positive psychological outcomes, such as increased positive affect, meaningfulness in life, and self-acceptance (Boyras & Efstathiou, 2011; Thomsen, Mehlsen, Christensen, & Zachariae, 2003; Trapnell & Campbell, 1999).

In addition to its positive impact on psychological well-being, self-reflection enhances adaptation in the career development process (Brady, Corbie-Smith, & Branch, 2002; Carver & Scheier, 1998; Li et al., 2015). Self-reflection helps individuals direct attention to possibilities and alternatives and form a sense of control; it can encourage individuals to consider such questions as "How can I prepare for the transition to the world of work while exploring future scenarios and possible selves?"

(Carver & Scheier, 1998). Hall (2002) also noted the importance of engaging in self-reflection for identity growth and increased career adaptability with flexibility and openness to new learning experiences. Regarding the impact of self-reflection on career adaptability, Brady et al. (2002) conducted qualitative research on medical resident experiences during medical training and found that being more self-reflective helped residents to gain confidence, put into practice things they learned about themselves, and take risks despite uncertainty. In a study of 264 Chinese undergraduates, Li et al. (2015) found that the *behavioral activation system*, which is a state of positive reflection on self, rewards, and possibilities that fosters approaching and pursuing attitudes and behaviors (Corr & Perkins, 2006; Gray & McNaughton, 2000), explains career adaptability better than the Big Five personality traits.

In contrast to self-reflection, self-rumination or self-absorption is a neurotic form of self-analysis that leads to consistent negativity about oneself and experiences of oneself (Trapnell & Campbell, 1999). It plays an important role in various pathological conditions, including anxiety, depression, alcohol abuse, and emotional disorders (Carver & Scheier, 1998; Hartman, 1983; Ingram, 1990; Spurr & Stopa, 2002; Watkins & Teasdale, 2004; Wood, Saltzberg, & Goldsamt, 1990). Excessive and prolonged self-focused attention on negative aspects of the self can foster negative effects and symptoms of various psychopathologies (Watkins & Teasdale, 2004). Individuals with self-absorbed attention are more likely to be aware of their state of emotional arousal or negative feelings and the possible flaws in their thoughts or behaviors (Bögels, Rijsemus, & De Jong, 2002). Thus, individuals who ruminate are likely to obsess over a perceived lack of abilities or resources and the stress experienced in dealing with career-related problems. According to Rosen and Hochwarter (2014), rumination was associated with significant negative impacts on work effort, job satisfaction, job retention, and depression among 239 employees at an architecture firm. The *behavioral inhibition system* is a state of self-rumination (Corr & Perkins, 2006) that involves avoidance behavior due to increased sensitivity to cues of threat or punishment (Gray & McNaughton, 2000). Corr and Mutinelli (2017) found a negative association between the behavioral inhibition system and career adaptability among 177 college students and recent graduates in England.

In sum, these findings provide evidence that adaptive self-focused attention (i.e., self-reflection) and maladaptive self-focused attention (i.e., self-rumination) motivate people to manage their job-related tasks and stressors effectively or not. These different types of self-focused attention will lead to a form of career adaptability that plays a role in managing potentially stressful career-related situations and challenges (Johnston, Luciano, Maggiori, Ruch, & Rossier, 2013; Savickas & Porfeli, 2012).

## **Career Adaptability and Career Anxiety**

Previous studies have reported that the degree of career adaptability affects the degree of career anxiety. Gadassi, Gati, and Wagman-Rolnick (2013) tried to examine the association of career adaptability with career anxiety by using the Career Decision-Making Profiles scale (Gati, Landman, Davidovitch, Asulin-Peretz, & Gadassi, 2010),

which measures general ability to adapt to career-related issues based on the career adaptability construct (Savickas, 2005). They found that aspiration for the ideal occupation, willingness to put in effort, and a sense of control are the main components of career adaptability, and these factors are negatively related to career anxiety. Xu, Hou, Tracey, and Zhang (2016) also found that a low level of career adaptability and avoiding and withdrawing from the uncertainties within the career decision-making process were positively related to a higher level of career anxiety among Chinese high school and college students. In a 2-year longitudinal study, Fiori, Bollmann, and Rossier (2015) found that increased career adaptability leads to a decrease in negative affect, such as anxiety, sadness, or frustration, which in turn leads to a higher level of job satisfaction and a lower level of work stress. Thus, previous studies concerning the relationship between career adaptability and career anxiety have consistently found that having an adequate level of career adaptability helps in managing the negative feelings that individuals are likely to experience when dealing with career-related tasks and circumstances. Given the theoretical framework of career adaptation and previous findings on the links between self-focused attention and career adaptability and between career adaptability and career anxiety, we proposed a mediation model of the effects of self-focused attention on career anxiety via career adaptability.

## Purpose of the Study

In the present study, we aimed to examine the mechanism by which self-focused attention affects career anxiety within the career construction model of adaptation (Hirschi et al., 2015; Rudolph et al., 2017; Savickas, 2013). We tested the hypothesis that the relationship between self-focused attention and career anxiety is mediated by career adaptability. Specifically, we hypothesized as follows:

*Hypothesis 1:* Self-reflection would be negatively associated with career anxiety, whereas self-rumination would be positively associated with career anxiety.

*Hypothesis 2:* Self-reflection would be positively associated with career adaptability, which would be negatively associated with career anxiety.

*Hypothesis 3:* Self-rumination would be negatively associated with career adaptability, which would be negatively connected to career anxiety.

## Method

### Participants

Participants consisted of 326 undergraduate students (121 women, 205 men) who were recruited from introductory psychology classes at a large university in Seoul, South Korea. The mean age of the participants was 22.76 years ( $SD = 2.33$ ). Among the participants, there were 101 first-year undergraduates (31%), 82 sophomores (25.2%), 55 juniors (16.9%), and 88 seniors (26.9%). Participants included 182 students in liberal arts (55.8%), 84 students in science and engineering (25.8%), and 56 students

in the arts (17.2%); four participants did not respond. Participants were asked whether they had made a decision about their careers; 300 (92%) answered yes, and 26 (8%) answered no. Participation was anonymous, and participants were assured of the confidentiality of their responses.

## Measures

*Self-focused attention.* Self-focused attention was measured by the Scale for Dispositional Self-Focused Attention in Social Situations (SCSAS; Lee & Kwon, 2005). The SCSAS is designed to assess two aspects of self-focused attention: (a) the general, natural, and adaptive tendency to pay attention to the self and to monitor and regulate one's thoughts and behaviors (self-reflection) and (b) self-absorbed attention, which is maladaptive and negative self-focused attention (self-rumination). Self-rumination is closely associated with negative psychological outcomes, such as a high level of social anxiety (Schwarzer & Wicklund, 2015). Self-reflection and self-rumination are measured by the two subscales of the SCSAS: General Self-Focused Attention (nine items) and Self-Absorbed Attention (21 items), respectively. Each item is rated on a 5-point Likert-type scale (1 = *does not correspond at all*, 5 = *corresponds completely*). Lee and Kwon (2005) reported reliability coefficients of .94 for the General Self-Focused Attention (self-reflection) subscale and .79 for the Self-Absorbed Attention (self-rumination) subscale. In the current study, the reliability coefficient was .83 for the General Self-Focused Attention subscale and .95 for the Self-Absorbed Attention subscale.

*Career adaptability.* Career adaptability was measured by the Career Adapt-Abilities Scale (CAAS)–International Form 2.0 (Savickas & Porfeli, 2012), which consists of four subscales: Concern (e.g., “Becoming aware of the educational and vocational choices that I must make”), Control (e.g., “Taking responsibility for my actions”), Curiosity (e.g., “Becoming curious about new opportunities”), and Confidence (e.g., “Working up to my ability”). The CAAS has a total of 24 items, with six items in each subscale. Each item is rated on a 5-point Likert-type scale ranging from 1 (*not strong*) to 5 (*strongest*). Researchers from 13 countries collaborated in constructing the CAAS for use in different countries (Savickas & Porfeli, 2012). The reliability and validity of the scale were tested in the 13 countries, and the cross-cultural validation of the scale was tested. Confirmatory factor analysis showed that the four-factor model was reliable and valid across countries. Concurrent validity was tested by correlation with the Vocational Identity Status Assessment (Porfeli, Lee, Vondracek, & Weigold, 2011). The internal reliability of the total CAAS score was .92, and Cronbach's alpha for reliability was .83 for Concern, .74 for Control, .79 for Curiosity, and .85 for Confidence (Savickas & Porfeli, 2012). In this study, we specifically used the Korean version of the CAAS (Tak, 2012). The reliabilities of the Korean version of the CAAS were reported in Shin (2013): Cronbach's alpha was .89 for Concern, .87 for Control, .85 for Curiosity, and .87 for Confidence. In the current study, the internal reliability of each subscale was .89, .90, .88, and .87, respectively.

*Career anxiety.* The Anxiety scale of the Emotional and Personality-Related Career Difficulties Questionnaire (EPCD; Saka et al., 2008) was used to measure career anxiety. We specifically used the Korean version

of the EPCD, which was translated and validated in Korean (Kim & Yon, 2014). The EPCD measures emotional and personality aspects of career-decision-making difficulties. It contains scales for anxiety, pessimism, and self-concept and identity. The Anxiety scale has four subscales measuring anxiety about the process, anxiety about uncertainty, anxiety about choices, and anxiety about outcomes. In a previous study, the Cronbach's alpha for reliability was .90 for process, .86 for uncertainty, .94 for choices, .87 for outcomes, and .96 for the total anxiety score (Saka et al., 2008). The validity of the scale has been confirmed in U.S. (Saka et al., 2008), Chinese (Hou, Li, Liu, & Gati, 2015), and Korean populations (Kim & Yon, 2014). In the current study, the internal reliability of the total anxiety score was .95, and Cronbach's alpha was .84 for process, .89 for uncertainty, .92 for choices, and .89 for outcomes.

## Results

We first examined the data for outliers and normality using Mahalanobis distance with  $p < .001$  to identify multivariate outliers. Skewness and kurtosis statistics were less than  $\pm 1$ , indicating that the data were normal and appropriate for the planned analyses. The reported sample size ( $N = 326$ ) is the actual number of cases used in analyses. Table 1 shows the means, standard deviations, skewness and kurtosis values, and zero-order correlations for the primary variables. Significant correlations are below .85; thus, multicollinearity is likely not a problem (Tabachnick & Fidell, 2007). As seen in Table 1, there were significant positive associations between self-rumination and career anxiety; however, self-reflection and career anxiety were not associated significantly.

We next used structural equation modeling analysis with AMOS to test our hypotheses. We used several indices to assess the goodness of fit of the hypothesized model. The comparative fit index (CFI) indicates the relative fit between the hypothesized model and a baseline model that assumes no relationships among variables; the CFI ranges from 0 to 1.0, with values closer to 1.0 indicating a better fit. The normed fit index (NFI) is derived by comparing the hypothesized model with the independent model, and a value of .90 or above indicates a well-fitting model. The Tucker–Lewis index (TLI) of .90 or above is considered a good fit. The standardized root-mean-square error of approximation (RMSEA) value is .07 or less in a well-fitting model (Byrne, 2010).

The proposed mediation model followed a two-step procedure. In the first step, confirmatory factor analysis was conducted to develop a measurement model with an acceptable fit. Once an acceptable fit was developed, the structural model was tested. The confirmatory model consisted of four latent variables and 14 observed variables. For career adaptability and anxiety, we used subscales as indicators of the latent variables. For self-reflection and self-rumination, we created item parcels using the item-to-construct balance method (Little, Cunningham, Shahar, & Widaman, 2002).

The measurement model showed a good fit to the data, with the following indices:  $\chi^2(71) = 232.86$ , CFI = .95, NFI = .93, TLI = .94, and RMSEA = .08 (90% confidence interval [.07, .09]). All factor loadings were significant ( $p < .001$ ), indicating that all latent variables were well represented by the indicators. Next, the structural model was analyzed to test the mediating role of career adaptability on career anxiety. The



**TABLE 1**  
**Means, Standard Deviations, Skewness and Kurtosis Values, and Zero-Order Correlations of Main Variables**

Variable	M	SD	Skew	Kurt	1	2	3	4	5	6	7	8	9	10	11	12
1. SRF	4.17	0.69	-.05	.67	—											
2. SRM	3.17	0.91	.13	.25	.27*	—										
3. CA	3.30	0.75	-.26	-.26	.36*	-.15*	—									
4. CO	3.14	0.89	-.12	-.49	.40*	-.06	.87*	—								
5. CON	3.55	0.87	-.42	-.27	.30*	-.22*	.87*	.66*	—							
6. CUR	3.30	0.84	-.26	-.31	.32*	-.08	.89*	.73*	.69*	—						
7. CFD	3.18	0.84	-.13	-.30	.25*	-.18*	.87*	.64*	.71*	.71*	—					
8. CAN	5.30	1.59	-.49	-.13	.01	.43*	-.27*	-.24*	-.33*	-.16*	-.22*	—				
9. PRO	5.79	1.69	-.54	.02	.14*	.37*	-.10	-.05	-.22*	.01	-.10	.74*	—			
10. UNC	5.38	1.92	-.42	-.52	-.06	.38*	-.29*	-.29*	-.31*	-.17*	-.23*	.91*	.63*	—		
11. CHO	5.33	1.81	-.38	-.48	.02	.39*	-.24*	-.22*	-.28*	-.15*	-.18*	.92*	.55*	.77*	—	
12. OUT	4.86	1.99	-.07	-.72	-.04	.34*	-.25*	-.18*	-.31*	-.17*	-.21*	.80*	.47*	.61*	.68*	—

Note. Skew = skewness; Kurt = kurtosis; SRF = self-reflection; SRM = self-rumination; CA = career adaptability; CO = concern; CON = control; CUR = curiosity; CFD = confidence; CAN = career anxiety; PRO = process; UNC = uncertainty; CHO = choice; OUT = outcomes.  
 \* $p < .01$ .

model showed a good fit to the data, with the following indices:  $\chi^2(71) = 232.86$ , CFI = .95, NFI = .93, TLI = .93, and RMSEA = .08 (see Figure 2). All paths were significant except that between self-reflection and career anxiety.

Bootstrapping was used to examine the mediating effect in the sequential mediator model. Bootstrapping is a means of examining multiple relationships simultaneously to compare the relative contribution of each mediator in multiple mediator models (Shrout & Bolger, 2002). Bootstrapping offers an empirical means to determine statistical significance. To conduct the bootstrapping analysis, we created 10,000 bootstrap data samples by randomly sampling with replacement from the original data set.

The results indicated that the direct effect of self-reflection on career anxiety was not significant, whereas the direct effect of self-rumination on anxiety was significant. This finding suggests that self-rumination is related to career anxiety, independent of the effects of self-reflection. Furthermore, the analyses revealed with 95% confidence that the total indirect effect (the difference between the total and direct effects) of the mediator was significant. The indirect effect of self-reflection and career adaptability on career anxiety was significant ( $B = .11$ ). The indirect effect of self-rumination and career adaptability on career anxiety was also significant ( $B = -.07$ ; see Table 2). Thus, career adaptability partly mediates the association between self-reflection and career anxiety and between self-rumination and career anxiety.

## Discussion

We examined career adaptability as a mediator of the relationships among self-reflection, self-rumination, and career anxiety using the career construction model of adaptation. The career construction model of

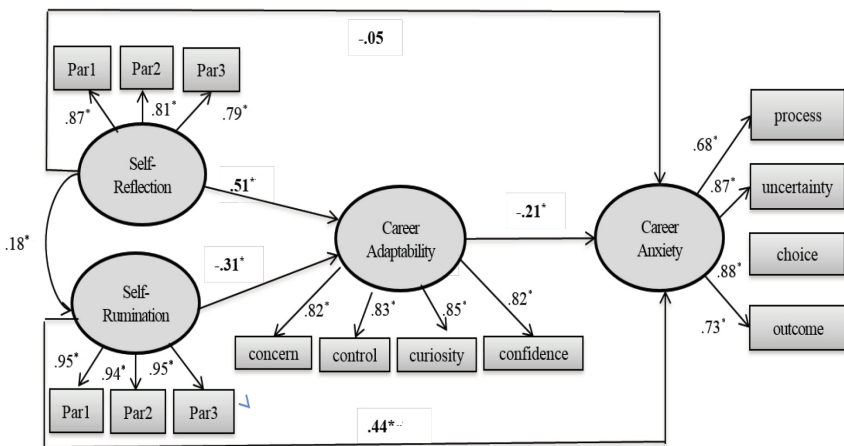


FIGURE 2

### Hypothesized Model

Note. Values indicate path coefficients. PAR = parcel.

\* $p < .01$ .

**TABLE 2**

**Direct and Indirect Effect Using Bootstrapping**

Path	DE	IE	95% CI
Self-reflection → Career anxiety	-.05		
Self-reflection → Career adaptability → Career anxiety		-.11*	[-.19, -.04]
Self-rumination → Career anxiety	.44*		
Self-rumination → Career adaptability → Career anxiety		.07*	[.02, .12]

*Note.* The total effect for (a) Self-reflection → Career anxiety and (b) Self-reflection → Career adaptability → Career anxiety was  $-.16$ ,  $p < .05$ . The total effect for (a) Self-rumination → Career anxiety and (b) Self-rumination → Career adaptability → Career anxiety was  $.51$ ,  $p < .01$ . DE = direct effect; IE = indirect effect; CI = confidence interval. \* $p < .01$ .

adaptation explains how individuals’ dispositional characteristics inform career adaptability as a psychosocial strength of self-regulation to manage expected and unexpected career-related tasks and transitions. Career adaptability may lead to career-specific positive and negative responses and outcomes, such as career planning and exploration, career anxiety and job stress, and work performance (Hirschi et al., 2015; Rudolph et al., 2017). Among the various adaptations for dealing with career-related tasks, managing anxiety could be a most effective way for people to continue the career development process throughout life because career-related contexts and situations are becoming more and more uncertain (Savickas et al., 2009). Thus, we explored the mechanism by which dispositional characteristics, specifically self-focused attention, affect management of career anxiety via career adaptability. We hypothesized mediation effects of career adaptability on the relationships between two aspects of self-focused attention (i.e., self-reflection and self-rumination) and career anxiety.

The present results supported significant indirect effects of two types of self-focused attention, self-reflection and self-rumination, on career anxiety via career adaptability. First, the results showed the importance of distinguishing between self-reflection and self-rumination, as these different types of attention had opposite associations with career anxiety. In our findings, self-reflection was negatively associated with career anxiety ( $B = -.05$ ), although this relationship was not statistically significant ( $p > .05$ ). Self-rumination was positively and significantly associated with career anxiety ( $B = .44$ ). The results partially supported our hypothesis by showing that only self-rumination had a negative influence on career anxiety, presumably because self-absorbed individuals may have difficulty regulating anxious feelings that hinder management of career-related tasks and other issues involved in the career decision-making process. Considering the magnitude of the association between self-rumination and career anxiety, we can assume that individuals’ negative absorption toward themselves can lead to career anxiety. Self-reflection seemed to have no direct effect on career anxiety, which indicates that self-reflection itself does not necessarily increase or decrease career-related negative

emotions, especially anxiety about career-related issues. However, further research is needed to assess whether self-reflection affects career-related positive emotions, because positive emotions could influence career anxiety (Bagozzi, Wong, & Yi, 2010).

Second, the indirect effects of both self-reflection and self-rumination on career anxiety via career adaptability were statistically significant. Thus, our hypothesis concerning the mediating effect of career adaptability on the relationship between two different kinds of self-focused attention and career anxiety was fully supported. Specifically, the results supported a positive relationship between self-reflection and career adaptability, which in turn was associated with a decreased level of career anxiety ( $B = -.11$ ). It seems that engaging in in-depth self-reflection may help individuals adaptively cope with career-related tasks by promoting effective emotional, cognitive, and behavioral self-regulation, which in turn decreases an individual's career anxiety. In-depth self-reflection includes the ability to attend to the needed agenda by seeking possibilities and alternatives with a sense of control (Carver & Scheier, 1998; Hall, 2002). Self-reflection differs from self-rumination, which involves excessive attention to negative aspects of self and outcomes (Watkins & Teasdale, 2004). Our results are consistent with previous findings showing that self-reflection is positively associated with career adaptability (Brady et al., 2002; Li et al., 2015). Also, with respect to effect size, our finding is similar to previous meta-analytic findings (Rudolph et al., 2017). An adequate level of monitoring, observing, and reflecting on the self could help individuals identify what they can and cannot control, what interests them, what they do not want to pursue, and their capabilities. Thus, self-reflection could help develop the psychosocial strength to cope with career-related tasks and challenges.

In contrast, as we hypothesized, our findings also demonstrated that self-rumination is negatively associated with career adaptability, which can lead to a higher level of career anxiety ( $B = .07$ ). These results are consistent with previous findings (Corr & Mutinelli, 2017; Rosen & Hochwarter, 2014) and show that an excessive focus on one's own bodily states, thoughts, attitudes, emotions, and behaviors could amplify the bias toward an uncomfortable and negative perception of the self and inhibit the development and use of one's adaptability resources to cope with career-related obstacles (Clark & Wells, 1995; Ingram, 1990). Heightened and obsessive maladaptive self-focused attention could cause individuals to exaggerate negative self-evaluation and negative emotional arousal and hinder their ability to shift their attention and process different perspectives; this could impede their ability to regulate emotional states. Limited and biased cognitive and emotional processes may in turn increase career anxiety, because individuals with such limits would have difficulty assessing their career-related decisions in a larger context.

In sum, our findings on the relationships among self-reflection, self-rumination, career adaptability, and career anxiety validated the hypothesized conceptual framework of the career construction model of adaptation (Savickas, 2005, 2013). Our findings also provide empirical support for the vital role of self-focused attention as an indicator of career adaptive readiness and show how self-focused attention may reduce career anxiety via career adaptability resources.

## Implications for Practice

Results of the present study suggest that counselors can help students manage career anxiety by encouraging them to allocate their attention strategically and enhance their degree of career adaptability. Individuals are likely to have both adaptive and maladaptive forms of self-focused attention, which is not necessarily problematic. However, if individuals show an excessive, sustained, and rigid negative focus on the self, this could interfere with their ability to problem solve appropriately. Using cognitive behavior therapy (Beck, 2011), for example, counselors could evaluate clients' tendencies toward self-reflection and self-rumination and help them end the vicious cycle of rumination by recognizing the underlying assumptions that maintain and exaggerate the rumination process. Counselors also can encourage different perspectives by discussing strengths, previous achievements, and the potential positive outcomes and rewards of career-related tasks.

To further develop career adaptability, counselors can support students seeking help for career-related problems by teaching them strategies for regulating emotions. Interventions can include raising emotional awareness and teaching healthy coping strategies for dealing with career anxiety (Brown, George-Curran, & Smith, 2003). Often, in career counseling, only career-related information and career-related assessment tools are emphasized, whereas other factors that influence the career decision-making process are overlooked. However, individual factors, such as personality traits and the ability to regulate emotions, are important in understanding career-related issues. The ability to deal with emotions, including negative emotions such as disappointment if rejected for a job, seems to play a critical role in college students' career adaptability and thus is an important area of clinical focus.

## Limitations and Future Research Directions

This study had several limitations. First, the data were self-reported and thus subject to self-serving biases. Second, the data were collected at a university in a large city in South Korea, so the results may not be generalizable to other regions. Finally, we used structural equation modeling to test the causal relationship between variables, but the findings are still based on correlational data collected at a single point in time. Therefore, causal inferences cannot be made from this cross-sectional data. In addition, the positive role of self-reflection in career adaptability, which leads to positive career-related emotions, needs to be further investigated to develop more ways to intervene in career anxiety during career counseling.

Despite these limitations, the current study adds to career research by exploring how self-focused attention affects career anxiety based on the well-established link between self-focused attention and social anxiety and the theoretical career construction model of adaptation. Unlike social phobia, career anxiety is not considered a mental disorder. However, given the significant negative impact of career anxiety, we documented the role of self-focused attention on career anxiety within the career adaptability framework and suggested a possible intervention to deal with career anxiety by addressing the mediator, career adaptability.

Given the significant effects of cognitive processes of self-exploration (i.e., self-reflection, self-rumination) on career anxiety via career adaptability,

future research exploring factors that would mediate or moderate the impact of two types of self-focused attention on career adaptability and adapting outcomes is needed. In addition, because the current study was conducted with a South Korean population, cross-cultural validation of the mediation effects of career adaptability on the link between self-focused attention and career anxiety will be beneficial to generalize the findings.

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