

Reviewer 3

A. Introduction 1. There is less novelty of this research and the importance of this research is not fully addressed. For example, although a variety of researches have examined the effects of personality and future time perspective on career decisions, few studies have been conducted to explore why personality would influence on career decisions. That is the reason the authors are motivated to explore? then why?

Author's respond: Thank you so much your excellent comments to our study. We could learn many things from your comments. The valuable comments are very helpful to update our manuscript.

The research aims to explain the mechanisms that underline the personality factors - career decision links by using future time perspective. There are previous studies on personality factors and career decisions that failed to support the link between personalities (e.g., extroversion, neuroticism) and career decision outcomes (e.g., career planning; career decision-making self-efficacy; Jin, Watkins, & Yuen, 2009; Rogers, Creed, & Glendon, 2008). By investigating the mediating effects of future time perspective, we seek to contribute to career decision literature by providing a deeper understanding of the role of personality factors and future time perspective in the process of career decision-making. We described it in the introduction section as follow.

FTP refers to an individual's belief about the time left in the future and how an individual think about the time left (Cate & John, 2007). **Individuals with high FTP are likely to perceive future time as expansive, highly value goals in future, and actively engage in current activities to achieve their goals (Ahn, & Min, 2018; Thoms & Blasko, 2004; Wittmann, Rudolph, Linares Gutierrez, & Winkler, 2015).** Previous studies have associated FTP with career decision outcomes, including career decision-making self-efficacy, career indecision, career decision-making difficulties, and career choice anxiety (e.g., Ferrari et al., 2010; Taber, 2013; Walker & Tracey, 2012). Zimbardo and Boyd (1999) also investigated the relationships between personality variables such as openness, aggression, depression, self-esteem, and time perspective. **In recent years, increasing research has focused on the relationship between personality factors and career decisions, demonstrating the important role of personality factors in facilitating individuals' career decisions (e.g., Di Fabio, Palazzeschi, Asulin-peretz, & Gati, 2013; Di Fabio, Palazzeschi, & Bar-On, 2012; Nilforooshan & Salimi, 2016; Park, Kim, Kwon, & Lee, 2018a).** However, it is uncertain whether personalities such as emotional intelligence or big five personality will translate into efficient career decisions in individuals. Evidence from previous studies on personality factors and career decisions fail to support the relationship between personalities (e.g., extroversion, neuroticism) and career decision outcomes (e.g., career planning; career decision-making self-efficacy; Jin, Watkins, & Yuen, 2009; Rogers, Creed, & Glendon, 2008). Therefore, our study aims to enhance understand around the mechanisms that link personality factors and career decisions by introducing FTP as a mediator, which is highly relevant to career decision-making activities.

In the present study, we aim to examine the mediating effects of FTP in the relationships between emotional and cognitive personality, trait personality, and career decision-making, and provide a more systematic and deeper understanding of the role of FTP in the career decision-making process. This study focuses on the characteristics of career decision-making, including career decision-making self-efficacy and career indecision. Career decision-making

self-efficacy is defined as the confidence or belief in one's career decision-making ability (Betz, Klein, & Taylor, 1996). Career indecision is defined as one's inability to make an effective career decision (Betz, 1992). It is generally believed that career decision-making self-efficacy is related to career indecision (Taylor & Betz, 1983). Thus, this study investigates the characteristics of the career decision-making, not only including the career decision-making self-efficacy, but also career indecision, focusing on both positive and negative aspects of career decision-making.

The purpose of this study is to investigate the mediating role of FTP between personality variables and career decision-making. Our study seeks to contribute to the literature on career decisions by providing a deeper understanding of the role of personality factors and FTP in the process of career decision-making. Moreover, considering the potentially positive and cognitive-motivational effects of FTP on an individuals' future development (Korff, Biemann, & Voelpel, 2017), we aim to further our knowledge of the antecedents and consequences of FTP, and provide implications for the sustainable career management.

What is a research gap between existing studies and your study?

Author's respond: The research gap is that little is known how personality factors influence on career decisions, and, the role of future time perspective in the personality - career decision links. We described it in the introduction section as follow.

However, it is uncertain whether personalities such as emotional intelligence or big five personality will translate into efficient career decisions in individuals. Evidence from previous studies on personality factors and career decisions fail to support the relationship between personalities (e.g., extroversion, neuroticism) and career decision outcomes (e.g., career planning; career decision-making self-efficacy; Jin, Watkins, & Yuen, 2009; Rogers, Creed, & Glendon, 2008). Therefore, our study aims to enhance understand around the mechanisms that link personality factors and career decisions by introducing FTP as a mediator, which is highly relevant to career decision-making activities.

Why should personality be dealt with in term of career-decision? Any evidence

Author's respond: The prior studies have focused on the relationship between personality factors and career decisions, and proved the important role of personality factors such as emotional intelligence and big five personality facilitating individuals' career decisions (e.g., Fabio, Palazzeschi, Asulinperetz, & Gati, 2013; Fabio, Palazzeschi, & Bar-On, 2012; Nilforooshan & Salimi, 2016). We described it in the introduction section as follow.

In recent years, a growing number of research has paid attention to the relationship between personality factors and career decisions and proved the important role of personality factors play in facilitating individuals' career decisions (e.g., Di Fabio, Palazzeschi, Asulinperetz, & Gati, 2013; Di Fabio, Palazzeschi, & Bar-On, 2012; Nilforooshan & Salimi, 2016; Park, Kim, Kwon, & Lee, 2018a).

Also, some arguments are stated without any evidence, too vague and unclear, and overly stated (exaggerated) so I cannot be persuaded by the authors' comments. For example, (In the

introduction section) For a sustainable career management, undergraduates should decide their perspective job after graduating from a college. Is there any reason for that? (what about before and during? or what about even people who decide their job before entering a college?). (In introduction section)

Author's respond: Sorry for our confusing writing. We want to argue that undergraduates should make early career decisions before, during or after graduating from a college. We described it in the introduction section as follow.

For the sustainable career management, undergraduates should decide on their perspective job before, during, or after graduating college. Evidence has shown that increasing numbers of undergraduates do not engage in career decision-making or have difficulty in making their career decisions until their graduation (Jin, Watkins, & Yuen, 2009), which may cause employment risks and psychological burdens (Jung, Park, & Rie, 2015; Wang, Ma, & Cao, 2006). Since early career decisions are perceived to be crucial in the long-term career success undergraduates (Jung et al., 2015), a good career decision can contribute to their sustainable career development.

That is, if individuals with this attitude are future oriented, they are more willing to prepare for the future what is this supposed to mean? (In the introduction section)

Author's respond: Sorry for confusing writing. Individuals with this attitude are future oriented, they are more likely to prepare for their future career such as make career plans and set their goals (Husman & Shell, 2008). This is because they possess a clear understanding of how their current activities affect the realization of their future goals (Park, Rie, Kim, & Park, 2018). We described it in the introduction section as follow.

That is, if individuals with this attitude are future oriented, they are more willing to prepare for their future as they possess a clear understanding of how their current activities affect the realization of their future goals (Park et al., 2018b).

Individuals with high future time perspective likely to value highly on goals in future and engage in current activities to achieve their goals. If an individual perceives his or her time to be not sufficient or limited, for example, there is another possibility that the individual may give up job-seeking. Because the authors fail to suggest a theory that can strengthen your arguments, whatever the authors have argued can be interpreted in many ways, resulting in misunderstandings. When you give your research matter, there is always a limitation so you need an assumption and frame that can shed light on your logic. I cannot find any powerful logic or theory that can help your story work in a logical way.

Author's respond: Based on the time perspective theory (Zimbardo & Boyd, 1999; Zimbardo, Keough, & Boyd 1997), individuals with higher future time perspective tend to “view future time as expansive and perceive a seemingly endless temporal horizon” (Korff, Biemann, & Voelpel, 2017, p. 47). Individuals with an expansive time perspective are more likely to pay more attention to obtaining knowledge and actively planning for their future (Ahn, & Min,

2018; Wittmann, Rudolph, Linares Gutierrez, & Winkler, 2015) than giving up job-seeking. We have described it in introduction section as follow.

FTP refers to an individual's belief about the time left in the future and how an individual think about the time left (Cate & John, 2007). Individuals with high FTP are likely to perceive future time as expansive, highly value goals in future, and actively engage in current activities to achieve their goals (Ahn, & Min, 2018; Thoms & Blasko, 2004; Wittmann, Rudolph, Linares Gutierrez, & Winkler, 2015).

B. Theoretical Background and Hypotheses There is no operationalized definition of each theoretical research construct. You need to explain why those variables were selected and why those variables were necessarily to be examined. For example, (in the effects of future time perspective section) Future time perspective has two dimensions: one focus on opportunity and one focus on remaining time (Cate & John, 2007; Korff, Biemann, & Voelpel, 2017). What does this study focus? Opportunity or remaining time or both? Then why? Where does the concept of future time perspective originate from? What is an underlying theory that future time perspective centers on?

Author's respond: According to your comment, we have added the theory about future time perspective and defined future time perspective as one's belief in future goals and the amount of time individuals consider they have left in the future, focusing on both opportunity and remaining time. We have revised this section as follow on pp 3-4.

The effects of FTP

Time perspective theory has attracted growing research attention of scholars in the field of personality psychology, educational psychology, and organizational psychology, and recently has been studied extensively in relation to motivation, health care, and career development (e.g., Ahn & Min, 2018; Husman, Hilpert, , & Brem, 2016; Öztemel & Yıldız-Akyol, 2019; Van Beek, Berghuis, Kerkhof, & Beekman, 2011). Zimbardo, Keough, and Boyd (1997) divided time perspective into the past, present, and future, stating that an individuals' time perspective influences their actions and how they adapt to change. Zimbardo and Boyd (1999) defined time perspective to be "the often nonconscious process whereby the continual flows of personal and social experiences are assigned to temporal categories, or time frames, that help to give order, coherence, and meaning to those events" (p. 1271). Therefore, time perspective is a basic aspect of one's subjective experience. Individuals with past time perspective tend to focus on tradition, family, and history; future-oriented individuals tend to focus more on planning, goal setting, and future goal attainment (Boniwell & Zimbardo, 2004; Kvasková & Almenara, 2019; Park & Jung, 2015). Since existing evidence has shown that FTP is positively associated with academic and career-related success (Barber, Munz, Bagsby, & Grawitch, 2009), this study focuses mainly on FTP and seeks to link it to sustainable career management.

FTP has two dimensions on which is focuses: opportunity and the time remaining (Cate & John, 2007). Park (2014) described that FTP is a concept constituting the perspective of chances for future career success, the evaluation of prospective future career, and the connection between current activities and future career. *In line with previous research, we*

defined FTP as one's belief in future goals and the amount of time one considers he or she has left in the future, focusing on both opportunity and time remaining. This is because previous research conducted on the relationship between FTP suggested that individuals with FTP tend not only to view their future time as expansive, but also attach more value to future goals (Korff et al., 2017; Park et al, 2018b).

There is no explanation about the selection of ego-resilience and self-control as the antecedents of future time perspective.

Author's response: We also explain the reason why ego resilience and self-control are selected as the antecedents of future time perspective in theoretical background and hypotheses section. We have revised this section as follow on pp 5-6.

1. Ego resilience was chosen as an antecedent of FTP in this study because ego resilience is highly related to positive attitude toward future (e.g., optimistic) and the ability to adapt to changes (Eisenberg, Chang, Ma, & Huang, 2009; Yusha Gong et al., 2019; Klohnen, 1996;), which may influence FTP. Ego resilience describes one's capacity to modify his or her modal level of self-control in response to situational needs and affordances (Block & Block, 1982; Letzring, Block, & Funder, 2005). Individuals with high ego resilience possess the ability to adapt at changing circumstances and use problem-solving strategies flexibly, while individuals with low ego resilience less adaptive flexibility and they are unable to deal with changing circumstances effectively (Block & Block, 1980; Eisenberg, Chang, Ma, & Huang, 2009). Baldwin (2011) revealed that psychological resources, such as ego resiliency and optimism, could reduce the level of psychological distress. Moreover, ego resilience has been found to be positively associated with global adjustment, work and social adjustment, and psychological and physical health adjustment (Klohnen, 1996).

2. Furthermore, self-control was selected as a predictor of FTP since self-control is related to the regulation of cognition and behavior for future goal attainments (Duckworth, Grant, Loew, Oettingen, & Gollwitzer, 2011; Letzring et al., 2005), which in turn, may influence one's perception of future time. Self-control refers to the ability to regulate emotions, dominate cognitions, inhibit impulse, and adjust behavior to achieve long-term goals (Baumeister, Vohs & Tice, 2007; Letzring et al., 2005). Previous researches have linked self-control to positive outcomes, such as stable emotional experience, good adjustment, interpersonal success, and academic success (de Ridder, Lensvelt-Mulders, Finkenauer, Stok, & Baumeister, 2012; Hagger, Wood, Stiff & Chatzisarantis, 2010; Tangney, Baumeister & Boone, 2004). Individuals with high self-control think what they do now is related to their future, identify conflict between temptation and better judgment, and implement self-control strategies to achieve their goals well (Myrseth & Fishbach , 2009). Accordingly, individuals with high self-control are likely to be future oriented and have clear plans for their future.

C. Method The authors must explain the targeted sample in terms of detailed procedures such as how the sample was selected, how the data were collected, the period of the data collection etc.

Author's respond: We are very sorry for our negligence of this information. We have provided more detailed information in the Participants and Procedure section on pp 12-14 as follow.

1. Totally, 250 undergraduates who are studying the psychology courses in a four-year university were recruited in study 1. On a psychology class, the researchers explained the purpose and procedure of the research to the students and all students agreed to participate in our research. Then, the participants used their own smartphones or computers to complete the survey by accessing the website (www.surveymonkey.com), on which items were entered in advance. Korean undergraduates mostly carried smartphones or tablet PC, so they could respond to the survey using their devices. The duration of the interpretation and completion of the questionnaire was approximately 10 minutes. Of 250 participants, 125 were male (50.6%), while 122 of them were female (49.4%). Three participants did not report their gender. In terms of year in college, 113 (45.4%) were in their first year, 82 (32.9%) in their second year, 30 (12.0%) in their third year, 24 (9.6%) in their fourth year and 1 student did not report his or her year in college. The average age was 21.58 years old ($SD = 2.10$).

The current study was conducted on the basis of the Declaration of Helsinki and was approved by Korea University review committee. We received informed consent from all participants which were written according to the Declaration of Helsinki.

2. In study 2, we recruited 249 undergraduates from a four-year university in Korean in a psychology class. As in Study 1, researchers explained the research purpose and procedure, and then invited them to participate in the research. This study was approved by Korea University review committee. All students agreed to participate in the study and gave written informed consent according to the Helsinki declaration. After the research purpose and procedure was explained in class, participants used their own mobile phones or computers to complete online survey questionnaire (www.surveymonkey.com). The duration of the entire survey was about 10 minutes. Of the participants, 172 were female (69.1%), while 75 were male (30.1%), and 2 participants did not report their gender. In terms of school year, there were 42 (16.9%) undergraduates in their first year, 85 (34.1%) in their second year, 75 (30.1%) in their third year, 47 (18.9%) in their fourth year and 1 student did not report his or her year in college. The average age of the participants was 21.96 years old ($SD = 3.66$).

D. Statistical analysis In terms of the issue of validity such as unidimensionality and discriminant validity, the authors did not explain their corresponding statistical procedures (e.g., CFA, AVE, Composite Reliability). Thus, without rigorous statistical procedures, the results produced and reported in this study are less convincing.

Author's respond: We informed the psychometric quality of the measurements used in this study. Although the original versions of scales show a good reliability, some measurements used in this study showed a lower reliability and we argued it as a limitation on page 20 as follow. We also calculated construct reliability to examine whether the results support the distinction of the instruments included in the research. We also used CFA to assess model fit on pp 10-11 as follow.

Measurement

Emotional Intelligence Emotional intelligence was measured with a 16-item Emotional Intelligence Scale developed by Wong and Law (2002). The scale consists of four sub-scales with four items in each sub-scale, including self-emotion appraisal, others' emotion appraisal, regulation of emotion and use of emotion. Han (2004) translated the scale into Korean and adapted it in his study. Sample items included, "I have a good sense of why I have certain feelings," "I always know my friends' emotions from their behavior," "I am able to control my temper and handle difficulties rationally," and "I would always encourage myself to try my best." Participants were rated on a 5-point Likert-type scale ranging from 1 (strongly disagree) to 5 (strongly agree). In Han's (2004) study, the Cronbach's alpha for this scale was .85. In this study, the Cronbach's alpha for the scale was .83.

Ego Resilience Ego resilience was measured with a 14-item scale developed by Block and Kremen (1996). Ryu, Hong, and Choi (2004) translated this scale into Korean and the results from his study showed that the Korean version had good reliability. Sample items were "Even when I encounter astonishing situation, I can be alright soon and overcome it well," "I am a person full of energy," and "I am more curious than other people." Responses were rated on a 4-point Likert-type scale ranging from 1 (not at all) to 4 (very much). The Cronbach's alpha for this scale in Ryu et al.'s (2004) study was .76. In this study, the Cronbach's alpha was .66.

Self-control Self-control was assessed using two-item scale developed by Weinstein, Healy and Ender (2002). Sample items included, "I can control myself very well," and "I cannot control myself at all (reverse coded)." Responses were rated on a 4-point Likert-type scale ranging from 1 (not at all) to 4 (very much). The scale was translated from English to Korean following the back-translation procedure recommended by Brislin (1986). Previous studies measure sense of self-control with a few items as in the study of Weinstein et al. (2002). For example, Long (1998) measured the sense of self-control through a single item. In this study, the Cronbach's alpha for the scale was .56.

FTP FTP was measured with the FTP Scale developed by Carstensen and Lang (1996), which contains 10 items. Kim (2008) translated the scale from English into Korean and the results from his study showed that the Korean version had good reliability. Sample items included, "There are many opportunities waiting for me in the future" and "As I get older, I begin to experience that time is limited." Responses were rated on a 7-point Likert-type scale ranging from 1 (not at all) to 7 (to a very great extent). The Cronbach's alpha for this scale in Park et al.'s (2018a) study was .80. In this study, the Cronbach's alpha was .77.

Career Decision-making Self-Efficacy Career decision-making self-efficacy was measured with 25-item Career Decision-Making Self-Efficacy Scale (CDMSE) developed by Betz et al. (1996). Lee (2000) translated the CDMSE into Korean and previous research showed that the Korean version has good reliability (e.g., Jung et al., 2015; Park et al., 2018b). The CDMSE consists of five sub-scales, including self-appraisal, goal selection, occupational information, planning, and problem solving. Sample items were "I can find out information related to the occupations that I am interested in via library and internet" and "I can choose the major that I like among the list of several majors." Items were rated on a 5-point Likert-type scale ranging from 1 (not at all) to 5 (very much). In Lee's (2001) study, the Cronbach's alpha for this scale was .85. In this study, the Cronbach's alpha for the scale was .66.

Career Indecision Career indecision was assessed with the sub-scale of the Career Decision Scale (CDS) developed and validated by Osipow, Carney, and Barak, (1976). In Korea, Ko (1992) used and adapted the 18-item career indecision sub-scale in her study. The Korean version CDS has consistently shown good reliability in previous studies (e.g., Park,

2015; Park, Hai, Lee, & Sohn, 2019). An example item was, “There are several professions I am equally interested in and I am having a really hard time choosing among them.” Responses were rated on a 4-point Likert-type scale ranging from 1 (not at all) to 4 (very much). The Cronbach's alpha for this scale in Ko's (1992) study was .86. In this study, the Cronbach's alpha was .69.

Convergent validity

Construct reliability was calculated to examine if the results support the distinction of the instruments included in the research (Fornell & Larcker, 1981). The results show that the construct reliability for emotional intelligence was .81, for ego resilience was .78, for future time perspective was .72, for career decision-making self-efficacy was .78, for career indecision was .87, which suggest that their convergent were acceptable as the construct reliability for each measurement is greater than the value of .70 (Bagozzi & Yi, 1988).

Preliminary Analysis

Table 1 shows the means and standard deviations for the variables measured, and the correlations among variables in the study. The hypotheses in study 1 were examined using structural equation modeling (AMOS 20) with maximum likelihood estimation method. The fit indices for the proposed model were χ^2 (5, N = 250) = 13.75, CFI = .94, TLI = .98, RMSEA = .08, which indicated an acceptable fit (Hu & Bentler, 1999).

Table 3 shows the means and standard deviations for the variables, and the correlations among factors in the study. The hypotheses in study 2 were examined using structural equation modeling (AMOS 20) with maximum likelihood estimation method. The fit indices for the proposed model were χ^2 (3, N = 249) = 6.89, CFI = .98, TLI = .92, RMSEA = .07, which indicated a good fit (Hu & Bentler, 1999).

Second, in study 1, self-control was measured with the following two items: “I can control myself well” and “I cannot control myself at all.” Although the previous study (Weinstein et al., 2002) used these items, there may be some issues in the validity and reliability of the scale. Considering that the Cronbach's alpha of this scale was .56 in this study, it is necessary to use standardized scale strictly in the future studies. Third, the Cronbach's alpha of the scales used in study 1 and two scales used in study 2 were lower than .70. Generally, in order to make the research scale to be acceptable, the Cronbach's alpha should be over .70 (Nunnally, 1978). However, the scale of ego resilience, self-control, career decision-making self-efficacy, and career indecision in study 1, and the scale of neuroticism and conscientiousness in study 2 did not reach this standard, limiting the generalizability of our study results. To generalize the results obtained in this study, future studies need to examine whether the data collected by these scales and other scales support our theoretical model.

E. Discussion After the manuscript is updated, the authors are advised to prepare for theoretical and practical implications based on the theory and outcomes of this research.

Author response: Thanks for your excellent comment. We have tried to include our discussion and implication section more clearly and accurately based on the finding of the research. We revised our implication section based on your comment on pp 19-20 as follow.

Theoretical implications

This study contributes to the existing literature by first investigating the relationships between personality, FTP and career decisions. **First, the findings revealed that FTP mediates the effect of personalities on career decision-making self-efficacy and career indecision, which offers a deeper understanding of the connection mechanism between personality and career decisions.** Many studies have investigated the impact of personality variables on career decision-making self-efficacy and career indecision. For instance, Di Fabio et al. (2013) demonstrated the negative association between emotional intelligence and career indecision. Hatman and Betz (2007) revealed that extraversion and conscientiousness had a positive effect on career decision-making self-efficacy while neuroticism was negatively related to career indecision. **However, little is known about the mechanism through which individuals' personalities would influence career decision-making self-efficacy and career indecision. This study highlights the importance of FTP and extends our understanding of the linkage between personality and career decisions by unfolding the mechanism that underlie the relationships between emotional, cognitive, and trait personalities and career decisions.**

Second, few studies have explored the relationship between FTP and personality (e.g., Carvalho, & Novo, 2015; Van Beek et al., 2011; Zimbardo & Boyd, 1999), thus yet we know little about the linkage between FTP and personality. **Compared with other personality traits such as Big Five personality and emotional intelligence, FTP is a cognitive-motivational construct that describes one's sense of future time, which focused on planning, goal setting, and other processes such as autobiographic memory (Kairys & Liniauskaite, 2015; Korff et al., 2017). Emotional intelligence is an emotional factor, and Big Five personality is a trait factor, which are units of personality (Pervin, 2003), while future time personality is more likely to be a cognitive construct.** By examining the relationship among FTP, emotional and cognitive personality, and trait personality that previous studies have not included, this study extend the FTP literature and show that the higher FTP is, the deeper we can understand how a person is like in the aspects of personality. Moreover, previous research has mainly focused on the consequences of FTP (e.g., Fung & Carstensen, 2006; Zacher & Frese, 2009, 2011), the antecedents of FTP has not received much attention. Our findings indicate that an individuals' emotional and cognitive personality factors (i.e., emotional intelligence, ego resilience, self-control), and trait personalities (i.e., extraversion, conscientiousness, neuroticism) would influence FTP. If a person has good emotional management or can control themselves well, he or she is expected to possess higher FTP.

Practical implications

Our results have some important practical implications for career counselling. The findings show that FTP meditates personality variables and career variables, personality will positively affect career variables by increasing students' FTP. Therefore, schools can increase the levels of students' career decision-making and reduce their career indecision by developing and implementing programs which can **increase** student's FTP. Previous studies (Ban, 2014; Anuszkiewicz 1983; Marko & Savickas, 1998; Savickas, 1991) showed that programs designed to increase FTP resulted in increased career decision-making self-efficacy and reduced career indecision. For example, counselors may guide students to write motivational letters to themselves about achieving goals and success in the future (Park et al., 2018b). **Furthermore, research has shown that a portion of undergraduates today are not future oriented and rarely consider the career path they are likely to choose, causing increased unemployment rates (Jin et al., 2009; Skorikov, 2007; Öztemel & Yıldız-Akyol, 2019). Therefore, it would be significant for schools, society, and policymakers to encourage young adults to foster a positive attitude towards their future, explore career opportunities, and prepare for future career. By implementing FTP programs, job seekers who graduated from**

universities may be motivated to increase their job search efficacy and act to realize career goals, which may contribute to their sustainable career management. Moreover, if programs designed to enhance FTP are implemented on the employees who are going to retire, their anxiety of choosing a second career would be reduced, and they can prepare for next career confidently or continue building up their existing career after retirement.

Else 1. The manuscript needs to be reorganized. It is very hard to follow your story. Very clumsy.

Author response: We are sorry for the poor writing. We have checked our manuscript carefully and revised the language again. We also received the professional English editing service for improving our manuscript.

2. While it is a minor issue, the proofreading should be conducted by a native English speaker (The current English is very poor) In summary, the current paper is very unpromising and its quality is below the standard. Therefore, the current study should pay more attention how your research questions are developed and how such findings can provide theoretical and empirical support to justify those questions.

Author response: We completely agree with your comment. In order to improve our manuscript, we had tried to revise point by point based on your comments. And then we submitted our manuscript to a professional English editing service. Based on your comments, we have tried to propose our research questions more tighter and compelling, and provide more stronger theoretical evidence to justify our questions. Please see our introduction and theoretical background section on pp 1-8 as follow.

For the sustainable career management, undergraduates should decide on their perspective job before, during, or after graduating college. Evidence has shown that increasing numbers of undergraduates do not engage in career decision-making or have difficulty in making their career decisions until their graduation (Jin, Watkins, & Yuen, 2009), which may cause employment risks and psychological burdens (Jung, Park, & Rie, 2015; Wang, Ma, & Cao, 2006). Since early career decisions are perceived to be crucial in the long-term career success undergraduates (Jung et al., 2015), a good career decision can contribute to their sustainable career development. Future time perspective (FTP) is considered as an important factor that influences individuals' career decisions and long-term development (Ferrari, Nota, & Soresi, 2010). That is, FTP is predominantly conducted in career decision-making process (e.g., Kvasková & Almenara, 2019; Park, Rie, Kim, & Park, 2018b; Walker & Tracey, 2012). Individuals with high positive expectations for future events choose to set higher goals and will achieve them excellently (Seligman, 2006). Although the time of career decision-making is essential, some undergraduates lacking confidence in their career decision-making still delay this, potentially limiting their career development. The planning attitude makes us focus on the future. That is, if individuals with this attitude are future oriented, they are more willing to prepare for their future as they possess a clear understanding of how their current activities affect the realization of their future goals (Park et al., 2018b). Therefore, FTP could serve as a crucial factor for effective career decisions among undergraduates (Jung et al., 2015; Walker & Tracey, 2012).

FTP refers to an individual's belief about the time left in the future and how an individual think about the time left (Cate & John, 2007). Individuals with high FTP are likely to perceive future time as expansive, highly value goals in future, and actively engage in current activities to achieve their goals (Ahn, & Min, 2018; Thoms & Blasko, 2004; Wittmann, Rudolph, Linares Gutierrez, & Winkler, 2015). Previous studies have associated FTP with career decision outcomes, including career decision-making self-efficacy, career indecision, career decision-making difficulties, and career choice anxiety (e.g., Ferrari et al., 2010; Taber, 2013; Walker & Tracey, 2012). Zimbardo and Boyd (1999) also investigated the relationships between personality variables such as openness, aggression, depression, self-esteem, and time perspective. In recent years, increasing research has focused on the relationship between personality factors and career decisions, demonstrating the important role of personality factors in facilitating individuals' career decisions (e.g., Di Fabio, Palazzeschi, Asulin-peretz, & Gati, 2013; Di Fabio, Palazzeschi, & Bar-On, 2012; Nilforooshan & Salimi, 2016; Park, Kim, Kwon, & Lee, 2018a). However, it is uncertain whether personalities such as emotional intelligence or big five personality will translate into efficient career decisions in individuals. Evidence from previous studies on personality factors and career decisions fail to support the relationship between personalities (e.g., extroversion, neuroticism) and career decision outcomes (e.g., career planning; career decision-making self-efficacy; Jin, Watkins, & Yuen, 2009; Rogers, Creed, & Glendon, 2008). Therefore, our study aims to enhance understand around the mechanisms that link personality factors and career decisions by introducing FTP as a mediator, which is highly relevant to career decision-making activities.

In the present study, we aim to examine the mediating effects of FTP in the relationships between emotional and cognitive personality, trait personality, and career decision-making, and provide a more systematic and deeper understanding of the role of FTP in the career decision-making process. This study focuses on the characteristics of career decision-making, including career decision-making self-efficacy and career indecision. Career decision-making self-efficacy is defined as the confidence or belief in one's career decision-making ability (Betz, Klein, & Taylor, 1996). Career indecision is defined as one's inability to make an effective career decision (Betz, 1992). It is generally believed that career decision-making self-efficacy is related to career indecision (Taylor & Betz, 1983). Thus, this study investigates the characteristics of the career decision-making, not only including the career decision-making self-efficacy, but also career indecision, focusing on both positive and negative aspects of career decision-making.

The purpose of this study is to investigate the mediating role of FTP between personality variables and career decision-making. Our study seeks to contribute to the literature on career decisions by providing a deeper understanding of the role of personality factors and FTP in the process of career decision-making. Moreover, considering the potentially positive and cognitive-motivational effects of FTP on an individuals' future development (Korff, Biemann, & Voelpel, 2017), we aim to further our knowledge of the antecedents and consequences of FTP, and provide implications for the sustainable career management. We designed two studies: study 1, in which we explore the mediating effects of FTP in the association between emotional personality factor (i.e., emotional intelligence), cognitive personality factors (i.e., ego-resilience, and self-control), and career decision outcomes, including career decision-making self-efficacy and career indecision, and study 2, in which we test the mediating role of FTP between personality traits (i.e. extraversion, neuroticism, and conscientiousness) and career decision-making.

