

EFFECTS OF PERSONALITY ON PROCRASTINATION: DOES IT VARY BY GENDER?

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I. INTRODUCTION

Procrastinatory behaviour has been a common phenomenon among young people nowadays not simply in their daily life such as mental health (Ferrari, 2010), emotion (Ferrari & Pychyl, 2007) and lack of persistence and work discipline (Abbasi & Alghamdi, 2015) but also observed in educational processes (Motie, Heidari&Sadeghi, 2012). Many studies have documented the negative consequence of procrastination by linking it to lower academic performance (Seo, 2012), poorer self-regulated learning (Wäschle, Allgaier, Lachner, Fink, & Nückles, 2014), and lower self-efficacy (Klassen, Krawchuk, & Rajani, 2008).

Despite this rise in recognition and importance, the exact nature of procrastination is still being debated. In 2005, a case was made that not all procrastination behaviors are harmful or are precursors of negative consequences (Chu & Choi, 2005). Passive procrastinators are traditional procrastinators who postpone their tasks until the last minute because of an inability to make the decision to act in a timely manner. In contrast, active procrastinators make intentional decisions to procrastinate, using their strong motivation under time pressure, and they are able to complete tasks before deadlines and achieve satisfactory outcomes (Chu & Choi, 2005). The majority of current literature tended to focus on passive procrastination, and researchers have studied active procrastination very little (Bui, 2007). Despite Bui's call for additional empirical studies on active procrastination, researchers simply acknowledge the presence of such adaptive type of procrastination behavior (Choi & Moran, 2009), without further examining its related constructs. Therefore, I examined both active and passive procrastination in this study for two purposes: 1) to identify the personality traits that affect (active and passive) procrastination, and 2) to compare and contrast this relationship between males and females.

II. LITERATURE REVIEW

Types of procrastination

Most researchers (e.g., Reiss, 2016; Rozental, Forsell, Svensson, Andersson, & Carlbring, 2015; Wäschle, Allgaier, Lachner, Fink, & Nückles, 2014) tended to interpret procrastination along pessimistic lines, by characterizing it as being bad, harmful, with negative

consequences. Passive procrastinators tend to be lazy or self-indulgent and postpone their tasks until the last minute because of an inability to act in a timely and regulatory manner (Choi & Moran, 2009). This self-handicapping behavior typically leads to wasted time, poorer performance, and increased stress (Chu & Choi, 2005).

In contrast, active procrastination is built on the idea that not all procrastination is "bad procrastination", but that sometimes people procrastinate to gain an advantage on a task, and do so intentionally with this goal in mind (Chowdhury & Pychyl, 2018; Strunk, 2012). Active procrastinators procrastinate intentionally. They are able to meet the deadlines and achieve goals using their strong motivation under time pressure (Choi & Moran, 2009). Hence, active procrastination occurs with the purpose of strategic gain, improved workflow and quality (Choi & Moran, 2009; Chu & Choi, 2005). In this study, we adopted Choi and Moran's (2009) definition of active procrastination as intentional decisions to procrastinate, use of strong motivation under time pressure, and the ability to complete tasks before deadlines and achieve satisfactory outcomes.

Procrastination and personality

Pychyl and Flett (2012) argued that there is still much more yet to learn about the tendency to procrastinate as a function of individual differences. One current trend in procrastination research has been building connections between procrastination and personality traits. According to the differential psychology perspective, procrastination is understood as a personality trait (Klingsieck, 2013b). Indeed, procrastination has been conceptualized as a weak point of personality (Firouzeh & Jalil, 2011) and illustrates an extreme variant of a personality trait, namely conscientiousness (Pychyl & Flett, 2012). As Lay (1997) argued, procrastination can be conceptualized as a paucity of conscientiousness if viewed from a personality perspective. This approach to understanding the effects of personality on procrastination has received attention as an alternative way to understand maladaptive ways of being in the world (e.g., personality disorders, Widiger, 1997). This was well supported in subsequent empirical studies wherein low conscientiousness was repeatedly shown to predict procrastination (e.g., Díaz-Morales, Cohen, & Ferrari,

2008; Karatas, 2015; Kim, Fernandez & Terrier, 2017).

Meanwhile, researchers have expanded the research scope of procrastination by examining the other four Big 5 personality traits. Many scholars reported that increased neuroticism (emotional instability) is also related to increased procrastination (e.g., Di Fabio, 2006; Karataş & Bademcioglu, 2015; Kim, Fernandez, & Terrier, 2017; Lee, Kelly, & Edwards, 2006), because people with irrational beliefs usually doubt their ability and interpret events negatively. Consequently, these people are inclined to self-handicap and procrastinate irrationally (Steel, 2007). However, this relationship was not as robust as expected. In some studies, the relationship was either rather weak or even disappeared (Moon & Illingworth, 2005; Schouwenburg & Lay, 1995; Steel & Klingsieck, 2016).

Similarly, there appeared to be aspects of extraversion that led to procrastination. McCown and others (1989) characterized a type of procrastinators as extraverted and outgoing. Extraverts' inclination for social activities has been found to become a common distraction, which facilitated procrastination (Haycock, 1993; Strongman & Burt, 2000). However, empirical results on this relationship were inconsistent. Some studies suggested that the impulsive nature of extraversion increased procrastination (Johnson & Bloom, 1995; Kim, Fernandez, & Terrier, 2017) while others only found negative (Karatas, 2015), or nonsignificant relations between them (Nadeem, Malik, & Javaid, 2016). Agreeableness had no overall relationship to the total procrastination, although a very limited number of students (7%) in Steel and Klingsieck's (2016) research did report that they procrastinated because of agreeing to peer pressure or conformity. Similarly, openness to experience had no significant relationship to procrastination in general (Aremu, Williams, & Adesina, 2011; Lai, bin Ahmad Badayai, Chandrasekaran, Lee, & Kulasingam, 2015; Steel & Klingsieck, 2016).

One of the main reasons for these inconsistent results stemmed from the lack of distinction between active and passive procrastination in prior literature, although most of the studies implicitly considered procrastination from the passive perspective. If the assumption that these two forms of procrastination were related yet distinguishable, their relationship patterns with personality should differ. Unfortunately, little is known about how the personality traits related to active procrastination in particular. One exception was the study by Choi and Moran (2009) who studied active procrastination with the Big Five personality as a potential correlate to active procrastination. They found that only emotional stability and extraversion among the five personality traits were positively significantly related to active

procrastination. Tang and others (2015) found neuroticism to be the only significant predictor of active procrastination. They also found that openness and extraversion had weak positive correlations with active procrastination. More recently, Kim and others (2017) found that extraversion and neuroticism were related to active procrastination. So far, no evidence was found that conscientiousness and agreeableness have any significant relationship with active procrastination.

III. GENDER DIFFERENCES

Despite the effort in highlighting the beneficial outcomes of active procrastination, Hensley (2016) posited that these survey-based studies of active procrastination typically included university students of all academic levels and different ethnic backgrounds. The studies demonstrated overall positive relations between active procrastination and desirable characteristics, yet they only tended to report aggregate results and did not test for group-level differences. Gender is one of the variables that helped us examine group-level differences in active procrastination as well as the relationship between active procrastination and other constructs. Indeed, there is some evidence of links between procrastination and gender.

Some argued that men reported higher levels of procrastination more than women (Balkis & Duru, 2009; Khan, Hafsa, Syeda, & Sidra, 2014; Özer, Demir, & Ferrari, 2009; Steel & Ferrari, 2013) whereas others found female students procrastinate more frequently (Washington, 2004; Rodarte-Luna & Sherry, 2008). Because prior literature only focused on gender comparisons in passive procrastination, it is necessary to verify this gender pattern in active procrastination. In addition, gender differences in personality have been consistently highlighted that females reported higher levels of extraversion, neuroticism, agreeableness and conscientiousness on the Big Five personality dimensions than males (Aşçı, Lindwall, Altıntaş, & Gürsel, 2015; Laher & Croxford, 2013), across methods (McCrae et al., 2005) and across countries (Schmitt, Realo, Voracek, & Allik, 2008). In this respect, the role of personality in procrastination could vary on the basis of gender. Therefore, in this study, I sought to continue examining the relationship between personality and active procrastination across gender.

In recent years, many scholars studied how gender differences affected procrastinatory behavior in learning settings. Results are mixed. Some researchers reported no notable differences in males' and females' mean scores on procrastination (Azar, 2013; Lowinger, He, Lin, & Chang, 2014; Özer, 2011), whereas others (Mandap, 2016) found out that male university students were more likely to

procrastinate than their female counterparts in Philippines. Similarly, the findings of gender differences on personality traits also varied. In general, male and female students differed in their personality yet in distinguishable aspects. Zuffianò and colleagues (2013) found gender differences only in agreeableness, while De Feyter and others (2012) males and females differed in conscientiousness, neuroticism, and agreeableness. Karwowski, Lebuda, Wisniewska, and Gralewski (2013) also found gender differences in conscientiousness, extraversion, and neuroticism.

Nadeem and others (2016) examined the relationship between university students' personality traits and procrastination and found that gender was a moderator on the relationship between personality and procrastination. Unfortunately, no further details were reported regarding this moderation effect. Therefore, this study seeks to exploit gender differences to determine the level of procrastination in response to personality traits.

IV. PRESENT STUDY

The purpose of this study was to gain deeper insight of both active and passive procrastination and to explore their relationships with personality across gender. Specifically, three research questions guided the current study:

- 1) Would there be significant relationships between types of procrastination and personality traits?
- 2) Would the relationship between active procrastination and personality traits be different across gender?
- 3) Would the relationship between passive procrastination and personality traits be different across gender?

V. METHOD

Participants and procedure

Three hundred and seven university students from a public university in Mainland China participated in this study; 45.3% were females and the mean age was 20.19 years ($SD = 1.51$). No missing data were found. All of the students responded to the questionnaire on a voluntary basis, with no compensation. Before the administration of the surveys, all the students were briefed on the purpose of the study and their right to withdraw from the study at any time.

Measures

The 16-item active procrastination scale by Choi and Moran (2009) was adopted in to measure the level of active procrastination. Each item was rated on a 5-Likert scale (1 = never, 5 = always). The reliability coefficient for the scale was satisfactory ($\alpha = .70$).

Six items were borrowed from the student version of the Procrastination Inventory developed by Lay (1988) to measure passive procrastination. Each item was rated on a 5-Likert scale (1 = strongly disagree, 5 = strongly agree). The reliability coefficient for the scale was good ($\alpha = .82$).

The Chinese version of the 15-item questionnaire for measuring the Big 5 personality traits (Zhou, 2015) was adapted from Caprara et al.'s (2003) Big Five Questionnaire—Children version (BFQ-C). It assesses the five major domains of personality: extraversion, agreeableness, openness to new experiences, conscientiousness, and emotional instability. Each item was rated on a 5-Likert scale (1 = never, 5 = always). Recent research (Caprara et al., 2011; Zhou, 2015; Zuffianò et al., 2013) provided evidence for the internal consistency and validity of this scale in both English and Chinese versions. Reliability coefficients for all subscales were acceptable (emotional stability: .62; extraversion: .63; openness to new experiences: .62; conscientiousness: .66; and agreeableness: .64).

VI. RESULTS

The descriptive statistics for all of the survey items were computed and examined for data normality. The skewness and kurtosis indices ranged from $-.35$ to $.00$ and $-.25$ to $.82$, respectively, which was within Kline's (2005) recommendation. Hence, the data for this study were regarded as normal and suitable for further analyses. Correlation coefficients were first examined among the main variables under study. Results showed that, with the overall sample, conscientiousness was negatively significantly related to passive procrastination ($r = -.38, p < .01$), but not with active procrastination. Emotional instability was significantly related to both passive procrastination ($r = .35, p < .01$) and active procrastination ($r = -.21, p < .01$). Agreeableness was negatively significantly related to active procrastination ($r = -.14, p < .05$), but not with passive procrastination, whereas openness was negatively significantly related to passive procrastination ($r = -.25, p < .01$), but not with active procrastination. Gender was not significantly related to any studied variables (Table 1).

To test whether the effect of personality traits on passive versus active procrastination varied by gender, the regression model was examined by each gender (Table 2). Compared to active procrastination, personality traits appeared to play a more important role in passive procrastination for both genders. With regards to passive procrastination, both conscientiousness and emotional instability were the strongest predictors for both males and females. However, openness to new experiences only predicted passive procrastination for females ($\beta = -.22, p < .01$), not males. With regards to active

procrastination, agreeableness was the strongest predictor for males ($\beta = -.38, p < .01$), yet emotional instability was the strongest for females ($\beta = -.28, p < .01$). Further, extraversion was a significant positive predictor of active procrastination for males ($\beta = .25, p < .05$), and conscientiousness was a marginally significant negative predictor of active procrastination for females ($\beta = -.16, p = .056$).

DISCUSSION

This study examined the relationships between personality traits and procrastination. The unique contributions of this study are twofold. First, this extends previous studies by examining both passive and active procrastination in the same study. Second, the relationships between personality traits and the two types of procrastination were examined across gender. The data showed that different personality traits played different roles in different types of procrastination.

This lends further support to the argument that active and passive procrastination operates in different ways. Only emotional instability was related to both types of procrastination, yet in opposite directions. The more emotionally unstable, the stronger tendency to passively procrastinate; yet the less emotionally stable, the stronger tendency to actively procrastinate. It appears that poor emotion regulation leads to delaying tasks, which accords to past findings that when people are unable to better control their emotions, they tend to doubt their capability and interpret situations negatively and thus are more likely to procrastinate irrationally (Steel, 2007). In contrast, good emotion regulation is likely to result in planful postponing of the tasks (also see Choi and Moran, 2009), because emotion regulation is highly related to cognitive regulation, which includes positive planning. Other types of personality traits took different roles in the two types of procrastination. Openness to new experiences and conscientiousness were only associated with passive procrastination whereas agreeableness was only related to active procrastination. This again highlighted the distinctive nature of these two ways of procrastination.

When these relationships were further examined by gender, similar as well as distinguished relationship patterns were revealed. Based on the distraction theory (Lewis & Linder, 1997), emotional instability was predicted to be the most likely trait to affect decision-making behavior under pressure (Byrne, 2015). The current data supported this. Emotional instability consistently had an effect on both types of procrastinatory behavior in both males and females. In achievement settings, students often need to make decisions under pressure, such as meeting deadlines. According to Beilock and Carr

(2004), such high-pressure situations create mental distractions that compete for and diminish working memory resources that are allocated to the task in low-pressure situations. As a consequence, emotionally unstable individuals should have higher levels anxiety and pressure-related intrusive thoughts that may occupy working memory resources, leading to non-optimal decisions as a result of decreased working memory capacity in high-pressure situations compared to low-pressure situations. By comparison, highly conscientious individuals seemed to be more focused on task completion, and thus were more effective at controlling the pace and timing of the work on hand. However, they may not necessarily make strategic decisions of prioritizing tasks for a given purpose (active procrastination).

Interestingly, agreeableness exhibited a different pattern: it was found to predict active procrastination (especially males) but not passive procrastination. Agreeable individuals were more responsible, planning their work and time in an efficient manner, and thus utilizing coping strategies that focus directly on the task (Cañadas-De la Fuente, Vargas, San Luis, García, Cañadas, & De la Fuente, 2015). Thus they could be more willing to prioritize tasks for efficient work completion.

Gender differences were more salient on the effect of openness on passive procrastination and the effect of extraversion on active procrastination. In the former case, females who were more open to new experiences tended to less passively procrastinate, and males who were more extravert tended to more actively procrastinate. Individuals who are open to new experiences are willing to learn and view challenges as opportunities to do so, magnifying their personal accomplishments (Cañadas-De la Fuente et al., 2015; Zellars, Perrewé, & Hochwarter, 2000). As females were found to be more open to new things and situations (Aşçı et al., 2015; Laher & Croxford, 2013), it is not surprising that openness has a stronger effect to reduce passive procrastination in female students. Extraverted individuals are characterized by their optimism, adopting a positive outlook towards their working situation (Cañadas-De la Fuente et al., 2015; Zellars, Perrewé, & Hochwarter, 2000). The current data showed that males with high extraversion tended to make plans and achieve goals. Yet this relationship disappeared for females. Further reasons warrant future investigations.

CONCLUSION AND IMPLICATIONS

In this study, the relationships between procrastination and personality traits were examined both by the types of procrastination as well as gender. The interpretation of the findings need certain cautions. First, the cross-sectional design did not allow me to provide definitive conclusions regarding

the observed differences. Experimental design can be considered in future work to disentangle the role of personality traits in response to passive and active procrastination independently. Second, Klingsieck (2013a) found that procrastination is domain-specific. The measure for procrastination in this study was designed at a general level, which left space in future work to examine under what circumstances the findings held true. Finally, it is important to note that these results may not apply to other subjects with different educational and cultural backgrounds.

In conclusion, this study has highlighted some significant relationships between personality traits and passive/active procrastination across gender. It extends our current understanding of the important role of personality traits in explaining procrastination and lays a good foundation for further research on this topic. The findings would help inform strategies by educators to understand the factors that might lead to different procrastination. School counselors could also consider the usefulness of personality profiling, in order to direct resources to prevent passive procrastinatory behavior among students with vulnerable personality traits.

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Table 1: Pearson Correlations between the Main Variables (N = 307)

Variables	Mean	SD	1	2	3	4	5	6	Gender
1. Extraversion	3.49	.60	-						-.02
2. Conscientiousness	3.20	.64	.18**	-					.07
3. Emotion instability	2.86	.59	-.06	.21**	-				.02
4. Agreeableness	3.82	.55	.62**	.24**	.17**	-			.07
5. Openness to experiences	3.56	.54	.29**	.44**	.20**	.40**	-		.05
6. Passive procrastination	3.11	.71	.06	.38**	.35**	-.00	.25**	-	-.01
7. Active procrastination	2.93	.37	-.05	-.00	.21**	-.14*	.04	.27**	.08

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

Table 2: Hierarchical Regressions Analyses of Personality Traits in Predicting Active Procrastination

Dependent Variable: Passive Procrastination			
Predictors	Standardized Coefficients		
	Overall Sample	Male	Female
Gender		-	-
Agreeableness	.10	.20	.04
Openness to new experiences	-.13*	-.05	-.22**
Conscientiousness	-.30**	-.31***	-.30***
Emotional instability	.28***	.33***	.24***
Extraversion	.11	.07	.13
R ²	.252	.262	.271
F	20.25***	9.42***	12.03***
Dependent Variable: Active Procrastination			
Predictors	Standardized Coefficients		
	Overall Sample	Male	Female
Gender		-	-
Agreeableness	-.25***	-.38**	-.19*
Openness to new experiences	.09	.05	.11
Conscientiousness	-.04	.09	-.16
Emotional instability	-.23***	-.24**	-.28**
Extraversion	.08	.25*	-.02
R ²	.084	.100	.119
F	5.49***	2.97*	4.39***

* p< .05. ** p< .01. *** p< .001.

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