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Academic Procrastination and Perfectionism (Adaptive and Maladaptive)

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This study aims to explain the relationship pattern between academic procrastination and perfectionism (adaptive and maladaptive). The theoretical basis of this study is TMT (*Temporal Motivation Theory)* which was measured by Task Utility (TU) instrument. A quantitative method approach was applied using Spearman correlation technique. The data obtained was processed with SPSS 16 for Windows. The subjects (*N* = 518) were psychology students. The results showed the absence of adequate correlations between academic procrastination and the two types of perfectionism (adaptive and maladaptive). The inadequate correlations were affected by two factors which are the existence of a mediator variable and the instrument (PASS-1 and APS-R) used. This study concludes that in adaptive perfectionism, flexibility of perception towards one's own standard affects the feelings that procrastination is not a problem. On the contrary in maladaptive perfectionism, one's own rigid standard affect the feelings that procrastination is a problem and should be reduced.

Keywords: academic procrastination, adaptive perfectionism, maladaptive perfectionism

Penelitian ini bertujuan untuk menjelaskan pola hubungan prokrastinasi akademik dan perfeksionisme (adaptif dan maladaptif). Dalam penelitian ini landasan teoretik yang digunakan adalah TMT (Temporal Motivation Theory) yang diukur melalui alat ukur Utilitas Tugas (UT). Penelitian ini menggunakan pendekatan kuantitatif dengan teknik korelasi Spearman dan data diproses dengan *SPSS 16 for Windows*. Subjek penelitian (*N* = 518) adalah mahasiswa fakultas psikologi. Hasil yang diperoleh menunjukkan tidak adanya korelasi memadai antara prokrastinasi akademik dan dua tipe perfeksionisme (adaptif dan maladaptif). Korelasi yang tidak memadai ini dipengaruhi oleh dua hal yakni adanya variabel eksternal yang berpengaruh (mediator) dan faktor alat ukur (PASS-1 dan APS-R) yang digunakan. Dengan demikian dapat disimpulkan bahwa pada perfeksionisme adaptif, fleksibilitas pandangan terhadap standar yang dimiliki memengaruhi perasaan bahwa prokrastinasi bukanlah sebuah masalah. Sebaliknya, pada perfeksionisme maladaptif kekakuan standar memengaruhi adanya perasaan bahwa prokrastinasi merupakan sebuah masalah yang ingin dikurangi.

Kata kunci: prokrastinasi akademik, perfeksionisme adaptif, perfeksionisme maladaptif

Procrastination is a term used to describe repeated delay. Procrastination means repeated delaying behavior on work-ing on a task (Lay, 1986). This procrastination phenomenon occurs in some aspects of life. The one which occurs in the academic field is called academic procrastination. Academic procrastination means repeated delay when working on academic task (Solomon & Rothblum, 1984; Steel, 2011).

The results of previous studies on academic procrastination indicate a considerable percentage of subjects who have high and very high score on academic procrastination. All of the subjects in these studies were undergraduate students. The results are shown in the Table 1.

According to Solomon and Rothblum (1984), academic procrastination occurs in six academic areas. The six areas are paper assignment, studying for exam, reading assignment, administrative task, attendance, and general academic task. Solomon and Rothblum conducted a study on these six academic areas. The result showed that procrastination mainly occurs in the areas of paper assignment (46.0%), reading assignment (30.1%), and studying for exam (27.6%). The percentage of procrastination in the other areas are not considerable (attendance 23%, administrative task 10.6%, and general academic task 10.2%).

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In addition to the data obtained from previous researches in Table 1, a preliminary survey related to academic procrastination was conducted in this study. The result shows that the majority of the subjects procrastinate in paper assignment (56.67%) and reading assignment (30.0%). This result is similar with the result of Solomon and Rothblum's (1984) which showed that procrastination mostly happened in paper assignment.

Table 1
Academic Procrastination Research

Foreign Country	Domestic (Indonesia)	Universitas Surabaya
Rothblum, Solomon, & Murakami (1986) → 40.6% from 126 subjects	Prima (2007) → 69.2% from 107 subjects	Surijah (2007) → 30.9% from 284 subjects
Özer, Demir, & Ferrari (2010) → 52% from 784 subjects		Kartadinata (2008) → 32.6% from 227 subjects

Note. Percentage on High and Very High Score

and reading assignment. In terms of time to start and finish the task, the majority of the subjects start working on their assignments three days before the deadline (D-3) and one day before the deadline (D-1) (33.33% and 43.33%), and finish it on D-1 (70%).

Furthermore, academic procrastination has been found causing various effects, such as high level of anxiety (Yao, 2009), lack of or even failures in both studying process (Kagan, Cakir, & Kandemir, 2010) and future career (Liu, 2010). Solomon and Rothblum (1984) stated that academic procrastination occurs because of the fear of failure. According to them, this fear of failure may cause depression and anxiety that eventually affect academic performance. The impacts of academic procrastination were also evident among preliminary survey subjects, which include negative and positive impacts. The most common negative impacts were the feeling that they were not working optimally (34.80%) and that they are always in a rush (31.25%). On the other side, the most common positive impact was they can have more leisure time (51.61%).

Despite the negative impacts, most undergraduate students still procrastinate. Continuing to do academic procrastination can affect one's future. The preliminary survey showed that 13.33% of the students perceive that academic achievement is not important. The perception that achievement is not important could potentially contribute to academic procrastination. This can lead to some adverse effects, such as a decrease in academic performance, failure in completing courses, or graduation delay.

This study used TMT (*Temporal Motivation Theory;* Steel & König, 2006; Steel, 2007 & 2011) as theoretical framework because TMT is an appropriate theory to explain the current phenomenon of procrastination (Sia, 2010; Steel, 2007). TMT explained that motivation consists of four aspects, which are expectancy, value, impulsiveness, and delay. Expectancy is related with hope and confidence in the results obtained, value is related with the sense of satisfaction that will be obtained, impulsiveness is related to the dependence on reward and time limit, and delay which is the deadline itself (Steel, 2007).

TMT was used as a theoretical framework in the preliminary survey to describe reasons of procrastination. The results of the preliminary survey showed that impulsiveness (53.33%) is the most common reason for someone to procrastinate. This suggests that someone will use the long-term deadline as an excuse to procrastinate. Long-term deadline was perceived as a chance to procrastinate on something that can be done immediately.

Solomon and Rothblum (1984) identify 13 factors that can be the cause of academic procrastination. These factors were used as a reference in PASS-2 (Procrastination Assessment Scale – Student - 2) instrument. One of the factors is perfectionism, which become the focus of this study. Perfectionism is a tendency to evaluate something excessively which is the result of the complex cognitive, emotion, and behaviour structures (Flett & Hewitt, 2007; Frost, Marten, Lahart, & Rosenblate, 1990). Perfectionism, when associated with TMT, can be categorized into the expectancy aspect because it is related with someone's belief to achieve their desired outcome (standard).

There is a similar tendency among the factors that causes procrastination and the nature of perfectionism, which is the fear to make mistakes and the fear of failure (Flett, Hewitt, & Martin, 1995; Solomon & Rothblum, 1984). Perfectionist individuals have high standards, and are very focused on those standards. It makes them put off tasks until they feel that they are able to meet the standards and receive recognition or appreciation for their work (Flett, Hewitt, & Martin, 1995). This kind of perfectionism is a definition of maladaptive perfectionism. Slaney, Rice, Mobley, Trippi, and Ashby (2001) revealed that perfectionism does not only have a negative definition, but also a positive definition called normal/adaptive perfectionism.

There are various kinds of studies related to academic procrastination and perfectionism. This study consists of research on the correlation between academic procrastination and perfectionism (general), and the correlation between academic procrastination and two types of perfectionism (adaptive and maladaptive). The results of the correlation between academic procrastination and perfectionism in general (Flett, Blankstein, Hewitt, & Koledin, 1992; Gunawinata, 2008) showed that significant correlation was found between academic procrastination and socially prescribed aspect (perfectionism because of the demands of others; $r = .3$). Other similar study is a study by Blackler (2011) on academic procrastination and perfectionism (adaptive and mala-daptive). The results showed that the correlation between academic procrastination and adaptive perfectionism ($r = .27$) is greater than the correlation between academic procrastination and maladaptive perfectionism ($r = .03$).

In addition to numerous previous studies, the first author also has personal experiences related to academic procrastination and perfectionism. The first author is also a perfectionist who puts a high standard to her assignments and exams scores, and she procrastinates frequently. The first author procrastinates because sometimes the she got ideas about the assignments when the deadline is approaching, so the completion of the task is faster. She sometimes starts to work on her assignments D – 1 and starts to study only hours before the exam. The first author's procrastination was accompanied by various excuses, such as that she does not work effectively at night so she better sleep and just finish it tommorow.

Various studies on the relationship between academic procrastination and perfectionism were conducted with different methods and instruments, so the conclusions were also different. There are certainly some weaknesses in these studies. One of them is the weakness of the study conducted by Gunawinata (2008) which had not distinguished the adaptive and maladaptive perfectionism. This weakness is then used as the focus of this study and will be used as a complement to the research conducted by Gunawinata. The research question of this study is the relationship pattern between academic procrastination and perfectionism (adaptive and maladaptive).

Academic Procrastination

Procrastination is a term derived from the Latin word *procrastinus, which* comes from two words, namely, *pro* and *crastinus*. *Pro* means to continue or to resume, while *crastinus* means tomorrow. When combined, *procrastinus* means "to finish tomorrow" (Steel, 2011).

Procrastination occurs in many areas of life; one of which is in the academic life or often called academic procrastination. Rothblum and Solomon (1984) define academic procrastination as delays in the academic areas that cause discomfort. Based on this definition, if the delay creates a feeling of comfort, it cannot be referred to as procrastination.

Academic procrastination consists of several aspects. The aspects used in this study are the aspects by Solomon and Rothblum (1984) which are also the aspects of PASS-1 (the first part of the Procrastination Academic Student-Scale). The use of these aspects was based on the suitability of the aspects, which covers the academic task areas and the procrastination intensity, with the academic areas of the research subjects. The aspects described by Solomon and Rothblum (1984) consist of six aspects related to the academic areas that are delayed (paper assignment, studying for exam, reading assignment, administrative task, attendance, and general academic task), and three aspects related to the procrastination intensity (frequency, problems, and the desire to reduce). Solomon and Rothblum (as cited in Fischer & Corcoran, 2007) explain that PASS-1 can be used with the total score. This suggests that PASS-1 is a unidimensional scale.

Steel (2002) explains that there are five indicators of procrastination. The first indicator is the task should be compulsory and there is interest to do it. The next indicator is the presence of clear time limits including the time when the assignment was given, the time given to complete the task, and the submission date. The third indicator is the presence of negative consequences that one knows s/he may get. The fourth indicator is the negative consequences can be prevented, and the fifth indicator is repetition or the frequency of the delay.

Perfectionism

Perfectionism as explained by Frost, Marten, Lahart, and Rosenblate (1990) is a behavior of setting a high standard in order to achieve a sense of satisfaction and not as a means to get recognition or to avoid evaluation. They also revealed that perfectionist individuals are always doubtful of their every action. Perfectionists has a tendency to really focus on the mistakes of others' performances as well as on their own performances. This behavior of focusing on mistakes is due to the high standard perfectionists set on themself and on others. This causes difficulties to them in finding a sense of satisfaction, and it can cause various adverse effects.

Another definition is explained by Hollender (1965), who

defined perfectionism in two definitions, namely adaptive and maladaptive perfectionism. Adaptive perfectionism is perfectionism characterized by the setting of high personal standards that are not rigid in order to achieve. On the other hand, maladaptive perfectionism is perfectionism that is not flexible in seeing the standards and is too anxious about the results and the existing standards.

In this study, the aspects of perfectionism used are the aspects explained by Slaney, Rice, Mobley, Trippi, and Ashby (2001). These aspects are standard, order, and discrepancy. Standard related to the high standards set and the behavior to achieve the perfect result that meets the existing standards. Order is an individual tendency to do things in an organized and systematic manner. The last aspect is discrepancy, that is the perception of the difference in the results obtained compared to the standard. Differences between what one's wants and the reality may cause dissatisfaction and distress in the individual.

TMT (*Temporal Motivation Theory*)

TMT is a motivational theory that was developed based on some major theories. These major theories are pico-economics, expectancy theory, cumulative prospect theory (CPT), and need theory. TMT itself is used to explain the motivation to do a task (task utility). There are several aspects that affect the utility of a task. These aspects are also aspects of the TMT, namely expectancy, value, impulsiveness, and delay. Expectancy and value are directly proportional with utility, so an increase in both aspects also increases the utility of a task. On the other hand, two other aspects, impulsiveness and delay are inversely proportional with utility, so an increase in both aspects decreases the utility of a task.

According to Steel (2007), the first aspect which is expectancy is related to a person's belief about the result that will be achieved. Steel (2007) explained that expectancy is associated with self-efficacy. When associated with procrastination, the greater the self-efficacy of an individual, the lower the individual tendency to procrastinate (ρ = - .46).

The second aspect is value which is related to the level of satisfaction one's derived from the task to be done (Steel & König, 2006). According to Steel (2007) value is associated with task aversiveness (ρ = .44), need for achievement (ρ = - .55), and boredom proneness (ρ= .51). When associated with procras- tination, the greater the task aversiveness and boredom proneness, the greater one's tendency to procrastinate, and vice versa. A task is considered to have a high value if it has low values in task aversiveness and boredom proneness and raises one's need of achievement to a high level.

The next aspect is impulsiveness which is related to the individual dependence on reward and the absence of time limit on a task. The longer the time needed until one get the reward and the longer the time given to finish the task, the longer the task will be delayed. The time limit and the time needed to get the reward will also affect the value of the task (the longer the time limit and the time needed to get the reward, the lower the value). The time limit and the time needed to get the reward are the aspects of delay according to Steel (2007).

Academic Procrastination and Perfectionism

A person can be said to possess a perfectionist trait when that person has high personal standards and expects to meet these standards. In this study, when an individual has high standard and order scores, the individual is said to be a perfectionist individual. Conversely, when the standard and order scores are low, the individual is said to be a non-perfectionist individual.

In perfectionist individuals, standard and order are perceived as very important. In achieving the desired standard and order individuals have two different perfectionist tendencies. These two tendencies are the adaptive perfectionism and maladaptive perfectionism.

The first pattern of relationships is the relationship between academic procrastination and adaptive perfectionism. In the adaptive perfectionism, the high standard and order scores are followed by a low discrepancy score. This means that in adaptive perfectionism, there is a feeling of satisfaction of the objective, the process, and the result obtained.

While associated with TMT, the standard aspect in adaptive perfectionism is categorized in expectancy and value. The categorization of standard in expectancy (high expectancy) is because a high standard will be followed by a high expectation to achieve the desired result. This expectation of the result is related to the motivation to achieve. Achievement motivation is the one included in the value category.

Achievement motivation is categorized as value because it is related with the values of an individual. An achievement is considered as something valuable by an adaptive perfectionist individual. This valuable achievement then led to the urge and need to achieve which eventually led to achievement motivation.

The second aspect is order. Order in adaptive perfectionism was categorized in impulsiveness (low impulsiveness). The categorization was based on the notion that someone who has a good self-regulation will not be easily distracted while doing something. This can happen be-

cause an individual with a high degree of order also has a high self-control. Therefore, in this study it was surmised that order would be negatively correlated with impulsiveness.

The pattern of the relationship between academic procrastination and adaptive perfectionism is hypothesized as 'common factor relationship' pattern. The common factor relationship pattern is a direct relationship pattern with several items being measured together in the two variables. Common relationship pattern can occur when the correlation factor between the two variables is > .5 (Carroll, 1961; Myers & Robertson, 1972). Items that were measured together in the correlation between academic procrastination and adaptive perfectionism were surmised to measure achievement motivation.

Furthermore, a person with an adaptive perfectionism has low discrepancy. That means, adaptive perfectionist individuals set flexible standards so they are not rigid in seeing the achievement obtained. This non-rigid attitude in seeing achievement obtained help the individual to feel a sense of satisfaction even though the result did not exactly reach the standard set (for example, standard GPA: 3.9; earned GPA: 3.7).

The second pattern of relationship is the relationship between academic procrastination and maladaptive perfectionism. Maladaptive perfectionist individuals score high in standard and order. High scores on these two aspects are also supported by a high discrepancy value. In other words, maladaptive perfectionism implies dissatisfaction felt by an individual in seeing the objective, the process, and the result obtained.

When viewed from the same theoretical construct, the TMT, these two aspects of perfectionism can be classified as the aspects of TMT. The first aspect which is standard can be categorized in high expectancy. On the other hand, like in adaptive perfectionism, order can be assumed to be classified as low impulsiveness.

Someone with maladaptive perfectionism have high personal standards in all things, so when associated with TMT it is a form of high expectancy. Expectancy at high standards is also followed by the individual's orderliness or high order. That is why order is associated as a form of low impulsiveness in TMT. Impulsiveness is a form of low self-control, while order is a form of orderliness in an individual (high self-control). In maladaptive perfectionism, high standard and low impulsiveness followed by fear of failure (fear of not achieving the expected results) are thought to increase the tendency to procrastinate.

The existence of fear of failure is expected to be common factor variable. Fear of failure is expected to be a collection of items measured together on the two main variables. Therefore, the relationship between academic procrastination and maladaptive perfectionism is also surmised to have a common factor relationship (Carroll, 1961; Myers & Robertson, 1972).

In individuals with maladaptive perfectionism, a sense of satisfaction will be difficult to achieve (high discrepancy). This difficulty in achieving a sense of satisfaction is because of the rigidity of the standard set. This rigidity causes them not being able to get a sense of satisfaction when the desired results were not met (for example, one's standard GPA: 3.9, there will be no tolerance though s/he get a GPA 3.89).

Method

This study uses the population of active students who are in the normal study period (class of 2008, 2009, 2010, and 2011) at the Faculty of Psychology, Universitas Surabaya. The purpose and reason for the selection of these subjects were to compare the results obtained with the past and future studies results at the Faculty of Psychology, Universitas Surabaya. The data was collected using academic procrastination question-naire (PASS-1; Solomon & Rothblum, 1984 and Task Utility; Siaputra & Amanda, 2011) and perfectionism (APS-R; Slaney, Rice, Mobley, Trippi, & Ashby, 2001).

PASS-1 scale was analysed in terms of the total score and the score of the aspects, while the Task Utility was analysed in term of the aspects score only. On the other hand, the APS-R scale was analysed using two filters. First it was done by looking at the score of standard and order. If the standard and order scores are high, the individual will be classified as perfectionist and if the scores are low, then the individual is classified as non-perfectionist. Then from the perfectionist individual, the discrepancy score will be used to distinguish adaptive and maladaptive perfectionism. High score on discrepancy suggests that the individual is a maladaptive perfectionist, and conversely, a low discrepancy score suggests that the individual is an adaptive perfectionist.

Data analysis was performed to correlate the two main variables. The process was started with a reliability test of the scale used (via the Alpha Cronbach score/α). If the scale is not reliable ($\alpha <$ .7; Nunnally, 1978), some items will be discarded until the scale is reliable. After the reliability test, then the normality test will be performed to determine the correlation technique that will be used. If the data is not normal ($p <$ .05) then the correlation of the variables will be tested using non-parametric statistical technique (Spearman correlation) and if the data is normal, the statistical technique that will be used is the

parametric technique (Pearson correlation). Correlation test is used to test the hypothesis. The hypothesis is said to be sufficient if it has a value of $r > .3$ or $r > -.3$ (Hemphill, 2003) and the value of $p < .05$ (Anastasi & Urbina, 1997).

Results

Subjects

The subjects of this study were 518 undergraduate students. Most of the subjects are female (432 subjects or 83.40%) and the rest are male (86 subjects or 16.60%). The majority of the subjects aged between 18 – 22 years old (92.10%).

Frequency Distribution

Based on the frequency distribution, the group categorization distribution of the academic procrastination (PASS-1) and perfectionism (APS-R) scores are obtained. Based on the categorization of PASS-1 results, 40.50% of the subjects had relatively high procrastination levels. On the other hand, categorization on the perfectionism scale showed that 50.70% of the subjects are perfectionists. The perfectionist subjects were then differentiated by their discrepancy scores, that showed that 47.90% of them are adaptive perfectionists and 52.10% are maladaptive perfectionists.

Reliability of the Instruments

Reliability test results showed that the six aspects of the PASS-1 task area are less reliable ($\alpha < .7$) when compared to the three intensity aspects (frequency $\alpha = .841$; problem $\alpha = .854$; desire to reduce $\alpha = .930$). Reliability results are also obtained from Task Utility (TU) scale, which showed adequate Alpha Cronbach value (low value = .728; low need for achievement = .619[1]). In addition to procrastionation instruments, reliability tests were also performed on perfectionism scale that shows sufficient value (standard $\alpha = .781$; order $\alpha = .800$; discrepancy $\alpha = .892$). These adequate reliability results suggest that there is no items that need to be discarded on all the scales used.

[1] Reliability test was not performed on other aspects, because they only consist of one item. The α of low need for achievement is considered adequate ($\alpha > .6$) because this is a new scale (Nunally, as cited in Midanik, Greenfield, & Bond, 2007; Sekaran & Bougie, 2010)

Normality Testing

The result of the normality testing of the scale was divided into the two types of perfectionism. Based on the results of normality testing in the adaptive perfect ionism, the significant values of all aspects obtained were not normal ($p < .05$). On the other hand in maladaptive perfectionism, normal data distribution was only obtained in the problem aspect of PASS-1 ($p = .200$), and on the other aspects, the data distribution were not normal ($p < .05$).

Hypothesis Testing

Hypothesis test results indicate that adequate correlation was not found on the correlation between academic procrastination and perfectionism (adaptive $r = -.200$; maladaptive $r = -.077$). These correlation results show the value that is not sufficient because it does not meet the criterium of significant correlation (r = .3 or - .3). The results of hypothesis testing on both types of perfectionism can be found in Table 2.

Additional Tests

In addition to the hypothesis testing, this study also performed other data analyses. The additional test showed a higher correlation in the frequency aspect compared to the total score (when correlated with other variables). Higher correlation values in frequency aspect (compared to the total) showed that PASS-1 cannot be said to be a unidimensional scale.

There is also data analysis on the correlation of each aspect of adaptive perfectionism that demonstrate adequate correlation between the frequency aspect of PASS-1 and order APS-R ($r = -.364$). The result of this correlation reveals that the higher the order of an individual, the lower the individual's tendency to procrastinate. On the correlation of other aspects, adequate correlation was not found. On the other hand, on maladaptive perfectionism, no adequate correlation was found in the correlation of each aspect of PASS-1 and APS-R.

Table 2
Hypothesis Testing Results

PASS-1 / APS-R	Total (r / p)	
	Adaptive	Maladaptive
S (*r* / *p*)	-.154/ .043	.001/ .494
O (*r* / *p*)	-.190/ .016	-.057/ .253
Total (*r* / *p*)	-.200/ .012	-.077/ .186

Data analysis was also conducted on the correlation between Task Utility (TU) with PASS-1 and APS-R. The results of the correlation test between TU and PASS-1 on the two types of perfectionism ($r > .3$) indicate that TU can be used to measure the frequency of procrastination. When TU was correlated with APS-R, sufficient correlation was obtained only on the correlation between low value and delay with order (in the adaptive perfectionism). It showed that the higher the order of an individual, the lower the individual's tendency to procrastinate using excuses such as there is still many time left to finish the task or the task is not really valuable. On the other hand, the correlation result between APS-R and TU on maladaptive perfectionism did not show an adequate correlation.

Discussion

Academic Procrastination and Adaptive Perfectionism

The correlation result between academic procrastination and adaptive perfectionism that is not adequate ($r = .200$) indicates that the two variables do not correlate directly. It also indicates that there are some influences from external (mediators) and internal (instrument) variables. Achievement motivation is also surmised to be an external variable that influence the result. Achievement motivation was expected to be a mediator because according to Hollender (1965), individuals with adaptive perfectionism have high achievement motivation. Therefore, this study tried to control the influence of achievement motivation[2] and tests its effect. When the achievement motivation variable is controlled, the correlation between academic procrastination and adaptive perfectionism decreased ($r_{before} = -.308$; $r_{after} = -.211$ (parametric statistical test)). Unfortunately, the Fisher test (Fife-Schaw, 2006) showed that the decrease in correlation is not significant ($p > .1$; Larson & Farber, 2012), so it can be said that the mediation effect is small.

In addition to the role of external variables, there is also internal influence from the instrument. Internal influence was seen when testing the correlation of the APS-R aspects, in which one of them is due to the effect of inadequate APS-R instrument, because it only measures the personal standards. Judging from the correlation result of procrastination and perfectionism in another perfectionism instrument (MPS), the correlation between procrastination and perfectionism is adequately obtained only on the socially prescribed aspect (Capan, 2010; Flett, Blankstein, Hewitt, & Koledin, 1992; Gunawinata, 2008). Socially prescribed perfectionism is a type of perfectionism based on the demands of others. The standard aspect in this study was not well equipped with items that measure the perfectionist demands from others. This is surmised to explain why the aspect score did not correlate adequately with procrastination.

In addition, it is also suspected that the responses of the subjects in the standard items are homogeneous. The homogeneity of the subjects' responses was suspected to be influenced by two things, namely measurement error (instrument) and sampling bias (the grouping of subjects). Measurement error was based on the mean of the subjects' responses that is quite high, 5.85. This value exists because the subjects answered based on their expectations and not on their standards. What is expected by an individual is not necessarily the individual's standard. On the other hand, sampling bias is surmised to occur because of the grouping of subjects (perfectionist and non-perfectionist), that caused a small variations in the answers.

The second aspect, order, is only adequately correlated with the frequency aspect of PASS-1 ($r = .364$) and not the total of PASS-1 ($r = .190$). This correlation indicates that frequency and order are mediators that relate academic procrastination and perfectionism. Therefore, control on both variables were performed and it decrease the correlation coefficient (parametric) of academic procrastination and adaptive perfectionism ($r_{before} = -.308$; $r_{after} = -.233$). Unfortunately the decline in the correlation coefficient was not significant ($p > .1$; Larson & Farber, 2012) when tested with the Fisher test (Fife-Schaw, 2006). In short, this suggests that the existence of frequency and order as mediators is not significant.

Academic Procrastination and Maladaptive Perfectionism

Similar with adaptive perfectionism, the correlation between academic procrastination and maladaptive perfectionism is also influenced by internal (instrument) and external (mediator) factors. The results obtained from the correlation of total scores of academic procrastination and maladaptive perfectionism ($r = .077$) indicates that these two variables did not correlate directly. This suggests that there is a mediator that affects the correlation of these variables, which is the fear of failure. Theoretically, fear of failure is the factor that are owned by both procrastinator and perfectionist individuals (Flett, Hewitt, & Martin, 1995; Solomon & Rothblum, 1984). Fear of failure can be measured from three aspects of PASS-2,

[2] Data on achievement motivation is obtained from another researcher in the same project (Clarissa Sugito). The scale used was Achievement Motivation Inventory (AMI).

which are evaluation anxiety, perfectionism, and lack of confidence (Solomon and Rothblum, 1984).

Fear of failure is expected to occur in maladaptive perfectionists because in maladaptive perfectionist individuals there is fear that they will fail to achieve the result they expect. This fear of failure is based on the dissatisfaction that continuously occur every time individuals have not reached the standard they set. In maladaptive perfectionists, this feeling often arise because of the tendency of absolutism/absolute outcomes cognitive distortions (Burns, 1998). Fear of failure then controlled and the results showed an increase in the correlation coefficient (r_{before} = - .178; r_{after} = - .183; parametric statistics). However, the increase in the correlation coefficient was not significant because $p >$ .1 (Larson & Farber, 2012) which means that the mediation influence is small and not significant.

In addition to external factor, there is also the influence of internal factors, which are the moderating influence of discrepancy (which distinguished adaptive and maladaptive perfectionism) and the role of APS-R instrument. The role of discrepancy as a moderator can be seen on the correlation results between academic procrastination and perfectionism (adaptive and maladaptive). The correlation coefficient result between academic procrastination and maladaptive perfectionism is smaller when compared to the correlation values of academic procrastination and adaptive perfectionism (r_1 = - .200; r_2 = - .077)[3]. However, when tested with Fisher test (Fife-Schaw, 2006), the correlation coefficient is not significantly different because the p values obtained > .1 (Larson & Farber, 2012), so it can be said that the moderation effect is small.

In addition to moderating effects, the low correlation value was also surmised to be caused by the homogeneity of responses that affects the inter-aspect correlation. Similar with adaptive perfectionism, the homogeneity of the answers can be caused by the presence of measurement error and sampling bias. Measurement error can be seen in the mean of the subjects' responses that tends to be high (standard = 5.95; order = 5.60) because it is only based on expectations and not on standards. On the other hand, sampling bias is due to the grouping of subjects (non-perfectionist and perfectionist).

The Relationship with TMT

When the academic procrastination scale was associated with TMT (through TU), sufficient correlation was only found in the frequency aspect of PASS-1 (with all aspects of Task Utility). This indicates that the result of PASS-1 measurement was associated with TMT only on the frequency aspect. These results occurred in both types of perfectionism (adaptive and maladaptive). These results support the notion that PASS-1 is not a unidimensional construct.

TMT (via TU) was also correlated with APS-R which showed that the only adequate correlation is between the order aspect and the low value aspect (r = - .311) and delay (r = - .315) on adaptive perfectionism. These results indicate that the higher the order of an individual, the lower the individual tendency to delay because the task is not convenient or not important. The results also show that when an individual has a high orderliness, the individual is not likely to depend on deadlines. On the other hand, on maladaptive perfectionism, adequate correlation was not found. These results indicate that in maladaptive perfectionist individuals, orderliness and self-standards are not related to the reasons of procrastination.

General Discussion

In general, based on the mean value, the mean scores of academic procrastination obtained is higher in maladaptive perfectionism (mean = 66.95) than in adaptive perfectionism (mean = 62.06). The higher mean value in maladaptive perfectionism is in line with the results of Yao's study (2009) which showed 36.52 as the mean of academic procrastination in maladaptive perfectionism and 32.46 in adaptive perfectionism. The mean values in this study reveals that there are differences in academic procrastination scores, but it has not been proven yet because a comparison test was not conducted.

Data analysis was also performed on the data obtained from the UT instrument that showed that the subjects used a variety of reasons when they procrastinate. Based on these data it can be seen that only a few subjects put off doing a task because the task is not worthy (17.00%). This result is similar to the preliminary survey result which showed only 13.33% of the subjects procrastinate because the task is not considered important.

In addition to the reasons for procrastination, data analysis was also done in terms of the task areas that are often delayed. In terms of the task areas, the task areas that are most frequently delayed are paper assignment and reading assignment. The high frequency in both areas is in line with Solomon and Rothblum research (1984) and with the results of the preliminary survey. In terms of the condition of the subjects, this two areas are the most common assignments given to them compared

[3] r1 is the correlation coefficient between academic procrastination and adaptive perfectionism; r2 is the correlation coefficient between academic procrastination and maladaptive perfectionism

to the other task areas, so procrastination measurement shows higher score on this two task areas.

The results of data analysis showed as many as 53.80% of the 518 subjects are classified as high procrastinator (relatively high, high, and very high). Compared with previous studies results in the Faculty of Psychology, Universitas Surabaya, the results of this study showed an increase in the percentage of procrastinators in the high category. In previous studies, it was found that the percentage of high procrastinators (high and very high) were 30.94% (Surijah, 2007) and 32.6% (Kartadinata, 2008). Based on these figures, it seems that there is an increase in the percentage of high procrastinators, but it was not yet proven as the categorizations used were different[4].

Conclusion

Based on data analysis, both types of perfectionists have a high desire to reduce procrastination (adaptive mean = 28.95; maladaptive mean = 28.96). In adaptive perfectionists, negative correlation between the procrastination frequency and the desire to reduce (r = - .233) is because when they put off doing a task, they are still capable of getting the results and satisfaction they wanted. Eventually they are encouraged not to reduce their procrastination.

On the other hand, maladaptive perfectionists have rigid standards and high dissatisfaction (Hollender, 1965). This is expected to cause them to feel that procrastination is a problem for them (r = .354). Therefore, to avoid dissatisfaction or regret, they have a high desire to reduce their procrastination.

Finally, it can be concluded that the difference in adaptive and maladaptive perfectionism in addition to the rigidity of the standards and the sense of satisfaction obtained, there is also another difference. The difference lies in the perception of procrastination as a problem or not. The more flexible the standards and the easier it is for someone to gain a sense of satisfaction, then procrastination will be perceived as not a problem, and vice versa.

Limitations, Suggestions, and Recommendation

One of the weaknesses of this study is the amount of the items that is too many (due to shared data collection), resulting in fatigue and a tendency to respond with 'neutral' or 'moderate' answers. In addition, limitation also appears in the APS-R and TU instruments. Some of the TU instrument aspects are single item measurement so reliability testing cannot be conducted. On the other hand, APS-R instrument do not measures perfectionism based on the demands of others (Capan, 2010; Flett, Blankstein, Hewitt, & Koledin, 1992; Gunawinata, 2008), and APS-R tends to measure only the expectations and not the standards, so that the means obtained were high.

Based on the limitations of this research, the authors offer suggestions for further research so that these limitations could be overcome. The first suggestion is to administer the questionnaire in different times so the subjects do not experience fatigue and the tendency to give neutral answers can be minimized. The next suggestion is to improve the TU and APS-R scales. For TU scale, other items should be added to improve its internal consistency. For the APS-R scales, items to measure perfectionism caused by the demands of others should be added, and the items needs to be clarified so it can distinguish standards from expectations.

It is recommended to use PASS-1 as a multidimensional rather than unidimensional scale. This recommendation is based on the results of this study that showed the frequency correlation with the second variable (aspect and total) that is higher (than the total score). These results showed that PASS-1 is not suitable when used through the total score.

[4] Budianto's (2008) and Surijah's (2007) study used five categories of frequency distribution, while this study uses six categories.

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