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# RETHINKING PROCRASTINATION

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## ABSTRACT

Procrastination refers to an action of replacing more urgent actions with less urgent actions or works and thus putting off impending tasks for a later time. Procrastination can lead to stress, give a feeling of guilt, severe loss of personal productivity and social disapproval for not meeting responsibilities or commitments. These feelings in combination may enhance procrastination. A problem in prefrontal cortex (PFC) leads to procrastination. Recent studies relate defected gene dopamine as a cause of procrastination.

**Key words:** neurotic procrastination, negative mental health, cognition, adolescent, prefrontal cortex, neurotransmitter, dopamine.

## INTRODUCTION

Procrastination has been described as a self-regulation style that involves delay in the start and/or completion of a task [1], and the avoidance of an intention and its implementation [2]. Lay (1986) [3] typically defined it as an irrational tendency to delay tasks that should be completed. Procrastination may be conceptualized as a behavioral self-handicap [1]. It refers to the act of replacing high-priority actions with tasks of low-priority, and thus putting off important tasks to a later time. Procrastination in large part reflects our perennial struggle with self-control as well as our inability to accurately predict how we'll feel tomorrow, or the next day. Procrastinators may say they perform better under pressure, but more often than not that's their way of justifying putting things off. It is defined as a behavior in which an individual leaves a feasible, important deed planned beforehand to another time without any sensible reason [4].

Although procrastination behavior is a common phenomenon and an unfavorable feature, it does not seem easy to define it in an agreeable manner in the literature [5]. When all the definitions are compared, it is commonly seen that the definition includes actions and behaviors that affect the fruitfulness of the individual in a negative way. While common, procrastination can have a detrimental impact on your life, including your grades [6]. It may come as no surprise that procrastination is a serious problem among students. Experts estimate that between 25 and 75 percent of college students put off doing their academic work on a regular basis. So why is it students fall into this deadly time trap? Researchers Ferrari, Johnson and McCown suggest that some cognitive distortions help contribute to this tendency to put important things off until the last moment [7]. So what can students do to overcome procrastination and avoid the stress, anxiety and poor performance that come from completing assignments at the last second? Researchers suggest that developing a schedule, carefully planning academic tasks, and improving time-management skills are all effective ways to cope with procrastination [8]. And the bright side? It's possible to overcome procrastination—with effort.

**The Problem of Procrastination**

People who procrastinate have not contentedly handed in their resignations. In fact, one struggle incessantly to shake off procrastination. One plans and schedule, write down and underscore, promise and make resolutions, organize and reorganize. One achieve a short lived refreshment from procrastination, and then crash thoroughly back into it because the problem of procrastination is one that often goes beyond self-discipline and whipping oneself from stasis to stress. It is usually the symptom of a multifaceted set of problems that defy a single solution. Procrastination usually has very deep roots [9].

This complex issue is studied under five different subtitles as follows; 1- General Procrastination, 2- Academic Procrastination, 3- Decision-making Procrastination, 4- Neurotic Procrastination, 5- Non-obsessional or Nonfunctional Procrastination. While general and academic procrastination is related to the averting of task, the other procrastination behaviors seem to be connected with decision making. Procrastination behavior in general is described as the difficulties that an individual has in performing daily tasks due to incapability to organize time and management effectively [10]. Solomon and Rothblum (1984) [11] define academic procrastination behavior as doing homework, preparing for exams or doing the term papers assigned at the end of the term at the last minute. Judgment making in

procrastination is illustrated as the incapability of making proper conclusions about different experiences [12]. Neurotic procrastination behavior is characterized as a tendency towards procrastination decisions about important matters in the individual's life [13]. Nonobsessional and functional procrastination behavior is depicted as procrastination in making behavioral decisions [14]. These five types of procrastination behaviors negatively affect the individual's management of internal and inter-relationships with people.

When studies on the reasons for procrastination behaviors are taken into concern, the most significant reason includes the individual's incompetence in time execution. Another reason for procrastination behaviors is shown as the difficulty to focus or the feeling of weak responsibility. The third reason is the anxiety and fear of being unsuccessful in a person's actions owing to negative insights. Moreover, other reasons are unrealistic expectations that the individual sets for himself and performance, improper cognitive ascription, and the tendency to become faultless [15, 16, 11].

The negative mental health consequences of procrastination (e.g., anxiety and depression) are well established [17, 18, 19]. Some psychologists cite such behavior as a mechanism for coping with the anxiety associated with starting or completing any task or decision. Others indicate that anxiety is just as likely to get people to start working early as late and the focus should be impulsiveness. Recent investigations have revealed that procrastination is also associated with negative physical health consequences [20, 21]. The traits of procrastination are obvious, more interesting are the traits of the procrastinator. Chronic procrastinators avoid revealing information about their abilities, prefer menial tasks, make poor time estimates, tend to focus on the past and do not act on their intentions. These characteristics have been related to low self-esteem, perfectionism, non-competitiveness, self-deception, self-control, self-confidence, depression and anxiety [22]. Chronic procrastination may be a sign of an underlying psychological disorder. Such procrastinators may have difficulty seeking support due to stigmatic beliefs that task-aversion is caused by laziness, low willpower, or low ambition [23].

**(1) Disorganization:** Procrastination and disorganization are integrally linked. Yet it is errant to assume that all disorganization is the same. In fact, procrastination-oriented disorganization occurs in four primary areas [9].

**(a) A poor distinction between urgency and priority.** Usually the procrastinators tend to attend to "convenient tasks" which are interesting and within reach in the beginning of the

urgency-priority cycle. They sacrifice priority for convenience. As they carry on with these tasks, other tasks begin to pile up, and soon a backlog of tasks demand attention. A bunch of puzzling new and old tasks seeks urgency, and the procrastinator is forced to drop current tasks to attend to the urgent ones. This confusion continues as tasks split into several categories and the procrastinator becomes subjected to the tyranny of the urgency, unable to establish proper priorities, and constantly seeks reprieve from these stresses by attending the tasks that are neither urgent nor priority.

**(b) Distractibility.** Closely related to the tendency of procrastinators to attend to comfort tasks is the problem of distractibility. It is not surprising to find procrastinators giving good explanation to a task is left unattended and they set up a good emotional boundary of saying "No" to oneself in order to stay back on task usually helps to limit attention to the multitude of off-task behaviors (distractions).

**(c) Forgetfulness.** In a non-privileged manner with no amount of precedence or boundary drawing can prevail over such disorganized forgetfulness. Typically, procrastinators boost they have an excellent & sharp memory and they often persist that they remember even though they seem to have forgotten. Usually many slips of "reminder" paper are found their pockets and purses, and appointment books or sometimes none at all (all practices have the same effect). A positive step in the correct direction remains to acknowledge any problem with forgetfulness and they must never use this as an excuse for inaction.

**(d) Lumping.** At last, a major part of procrastination behavior comes in the form of a lump of large piece, that is, the errant perception that most tasks come as an indistinguishable whole "lump" that cannot be further subdivided and dealt with systematically.

**(2) Fear:** Fear motivated procrastination is usually expressed as avoidance and the intense desire to either postpone executing a task or pass the time for its expiry so that it no longer has to be dealt with. Usually, one task is related to another, and the bunch of avoided tasks enhances with time. As the tasks up, the procrastinator becomes depressed, inactive and walks out. The internal fights of fear-motivated procrastination are usually of two types: the rational versus the irrational. Attempts at resolving these internal induced conflicts must start at the level of dealing with the fear rather than with logic or greater discipline.

**(3) Perfectionism:** Most procrastinators fail to think themselves as perfectionists. In fact, perfectionism can lead to burst performance, meaning that an individual goes ahead to attack a task with great energy and then drops back in exhaustion after having infuriated, irritated, or alienated everyone around. Perfectionism has also been found to be strongly related to depression and an extremely critical spirit (either self or other critical).

Perfectionism, in fact, is a form of rigidity or unbendable character that is marked by three major characteristics: (1) The extreme craving to jump in and do things yourself because others just can't do it right; (2) the adamant thought that one wouldn't even start on something if one can't do it excellent; and (3) the intense need for conclusion, indicated by disturbance or discomfort should something be left "slinging". Each of the above characteristics "compels" the perfectionist to procrastinate. For perfectionistic procrastinators, the initial step in dealing with procrastination is accepting and disliking these three basic tendencies. Then practical resolutions can be applied orderly.

**(4) Procrastination as an Indicator:** Procrastination may also be an pointer of a more serious physical or psychological problem that should respond affirmatively to treatment. Often, such procrastination is not observed by the one procrastinating, but by others close to that person. Extreme anxiety, severe clinical depression, obsessive compulsive disorder, attention deficit disorder with or without hyperactivity, and illnesses that are related to memory loss are examples of such dysfunctions that may lead to procrastination.

**Procrastination in Adoloscents**

Procrastination is considered as one of the common behaviours that leads adolescents into a lot of stress. Procrastination is a conduct that honestly comes by since most of them first learn to do it as part of early adolescence, and with continued practice mature it into a costly habit in the years that follow.

A 1992 study showed that "52% of surveyed students indicated having a moderate to high need for help concerning procrastination" It is estimated that 80%–95% of college students engage in procrastination, approximately 75% considering themselves procrastinators. Studies have shown that 70% of the college population procrastinates on their school work [13] and the likelihood of procrastination increases from freshmen to senior year [24]. These students tend to procrastinate when writing papers, studying for test and when completing assignments [11], assignments that are often considered effortful and anxiety producing [1].

Academic procrastinators also underestimate the time it takes to complete a project and believe that working at last minute will make them more creative, which they typically are not. College students who procrastinate have claimed that their procrastination has a significant impact on their academic standing, ability to understand class material and the overall quality of their lives [1, 10, 12, 14, 15, 17, 18].

Students identified as high procrastinators had evidence of compromised immune systems as more colds, flu and some had bouts of insomnia. Tice and Baumeister (1997) [21] have reported that those who procrastinate reported less stress and illness early in the academic year and increased occurrences of illness and stress toward the end. Overall, they found that those who procrastinated were ill more often than the ones that were not high procrastinators. Procrastinating students engage in few healthy behaviour because of weaker intentions to engage in those behaviours. Procrastination does not shift amount of stress and illness, it only increases the amount of it. It seems that short term benefits have long-term costs.

**(1) Self Efficacy**

Self-efficacy is the sense of belief that one's actions have an effect on the environment and the study of this concept has been developing since the early work of Albert Bandura (1977) [25]. According to Bandura, self-efficacy is "the belief in one's capabilities to organize and execute the courses of action required to manage prospective situations". The concept of self-efficacy lies in center of Bandura's social cognitive theory. Bandura posits that a person's attitudes, abilities, and cognitive skills comprise what is known as the self-system. This system plays a major role in how we perceive situations and how we behave in response to different situations. Self-efficacy plays are an essential part of this self-system. As per Bandura's (1977) [25] self-efficacy theory, self-efficacy beliefs operate through cognitive, motivational, affective, and selection processes to regulate how people think, feel, motivate themselves, and behave.

The three primary behavioral outcomes influenced by self-efficacy beliefs are: 1) approach versus avoidance, 2) performance, and 3) persistence [25 26]. An individual with high self-efficacy for a particular behavior is more likely to approach, better perform, and persist at that behavior. A strong sense of efficacy enhances human accomplishment and personal well-being in many ways. On the other hand, an individual with low self-efficacy for a specific behavior is less likely to approach, perform well and/or persist at that behavior.

According to Bandura [25 26], an individual may gain a greater sense of self-efficacy from four informational sources, they are: 1) performance accomplishments, 2) vicarious learning, 3) social persuasion, and 4) emotional arousal. Performance accomplishment is based on an individual's past success in performing a task or behavior. If an individual has already performed a certain behavior well, then he or she is likely to have stronger self-efficacy beliefs with regards to that behavior. Bandura (1986) [27] posited that performance accomplishment, or *enactive mastery*, is the most influential source for self-efficacy beliefs. A second source of self-efficacy is *vicarious learning*. Vicarious learning takes place when an individual observes and learns from the behaviors of others. If an individual observes someone else doing well at a particular task of interest, he or she is more likely to engage in that same task. Vicarious learning is usually more effective if the other individual modeling the behavior is similar to the observer and if the other individual is rewarded for his or her efforts. *Social persuasion* is the third primary informational source for self-efficacy beliefs. If others give an individual reinforcement for a behavior, then he or she is likely to have higher self-efficacy for that behavior. Therefore, encouragement is a powerful tool for increasing self-efficacy beliefs in others. A final source influencing self-efficacy beliefs is physiological and affective states. Bandura (2000) [28] indicated that *emotional/somatic information* is especially significant for behaviors involving health functioning, coping with stressors, and physical accomplishments. Individuals utilize both their moods and their bodily sensations when formulating their self-efficacy beliefs for certain behaviors. If an individual engages in a particular behavior and experiences distressing sensations, for example anxiety, he or she is usually less likely to participate in that behavior again. These four sources of self-efficacy beliefs directly impact several behavioral outcomes.

**(2) Self-Efficacy in Adolescence**

Adolescence is often a stressful period during development because it involves a pivotal transition from childhood dependency to adulthood independence and self-sufficiency [29].

Bandura (2000) [28] hypothesized that self-efficacy beliefs interact with many other determinants of academic functioning—personal, contextual, and behavioral. For this reason, self-efficacy measures are designed to reveal the task-, condition-, and context-specificity of personal competence beliefs and to be sensitive to changes in functioning. Bandura asserts that each period of development brings with it new challenges for coping efficacy. In response to the demands of adulthood, adolescents have to learn how to deal with pubertal changes, emotionally invested partnerships and sexuality. The task of choosing what lifework

to pursue also looms large during this period. These are but a few of the areas in which new competencies and self-beliefs of efficacy have to be developed. Adolescents expand and strengthen their sense of efficacy by learning how to deal successfully with potentially troublesome matters in which they are unpracticed as well as with advantageous life events. Insulation from problematic situations leaves one ill-prepared to cope with potential difficulties. Whether adolescents foresake risky activities or become chronically enmeshed in them is determined by the interplay of personal competencies, self- management efficacy and the prevailing influences in their lives.

Understanding the level of procrastination and self efficacy and examining the role of procrastination on self- efficacy is very necessary to develop the appropriate approaches necessary for adolescent well- being. The present study is an analysis regarding the role of procrastination on the self- efficacy of adolescents.

**Taking Charge of Procrastination** [9]

**(1) What if am I afraid of?:** In fear-induced procrastination, it is necessary to identify the fear factor to begin with.

**2) Get appointment with books:** Usually procrastinators start ambitiously. It is better to purchase an appointment book, preferably one that is about the size of a small paperback that has a one week spread when the book is opened. Appointment books address the problems of disorganization and even help to aid a poor memory.

**3) "Dechunking":** Splitting a task down into manageable chunks ("dechunking") often removes the threat of having to do a large task all at once. Sometimes, a task may be underestimated as consuming very little energy but it becomes a reality when takes up a good chunk of ones energies. One should learn to break tasks down to 15 minute chunks or so to begin with. As one get more practiced to it, it increases the size of chunks and it proves to be very helpful to use appointment book to plan dechunking.

**4) Breaking Free:** Procrastination has a way of ruling ones live if it is not brought under control. Many procrastinators resign and hope that the explanation suffices. Not by a long shot. Laziness is procrastination's out of control. It just takes a great deal of wisdom and effort to remove oneself from the clutches of procrastination, but the results are often worth the while.

**Psychological cause of procrastination**

The psychological causes of procrastination are much in great debate. Drawing on clinical work, there seems to be a connection over issues of anxiety, low sense of self-esteem, and a self-defeating mentality. Procrastination is strongly connected with lack of self-confidence (e.g., low self-efficacy, or Learned helplessness), disliking the task (e.g., boredom and apathy). The strongest connection to procrastination, however, is impulsiveness. These characteristics are often used as measures of the personality trait conscientiousness whereas anxiety and irrational beliefs (such as perfectionism) are aspects of the personality trait neuroticism. Accordingly, Lee, Kelly and Edwards (2006) [30] indicated that neuroticism has no direct links to procrastination and that any relationship is fully mediated by conscientiousness.

**The Neurobiology of Procrastination**

**(1) Biological cause:** Up until this point, procrastination has been discussed from a psychological standpoint. The perspective countering previously stated information is biological. Some researchers link procrastination to physical disorders and lesions in the brain, particularly in the frontal lobe - specifically the bilateral hemisphere in globus pallidus. The prefrontal cortex (PFC) of the frontal lobe controls cognitive processes. Many of its functions are routinely used in daily life (i.e. judgment, planning, critical thinking, empathy, attention span, organization, etc.). As the most evolved part of the brain, the PFC is responsible for necessary behavior in a social sphere, consequently affecting our personalities. “The capacity of the individual to generate goals and to achieve them is considered to be an essential aspect of a mature and effective personality. It is not a social convention or an artifact of culture. It is hard wired in the construction of the prefrontal cortex and its connections”. Given the importance of the PFC, a dysfunction can cause problems with organization, procrastination, judgment, attention span and distractibility. The PFC sends signals to the limbic and sensory parts of the brain. When a person needs to focus, the PFC decreases the distracting input from the other brain areas). Therefore, if there is a problem with the PFC, there is no filter mechanism at work. Underactivity of the PFC is common with Attention Deficit Disorder [22].

**(2) Genetic cause:** The gene of interest in treating procrastination is the gene encoding for the dopamine D2 receptor, which is one of five types of receptors for dopamine. It is an integral member protein that is hypothesized to be involved in psychiatric disorders,

especially schizophrenia, and linked to a susceptibility to alcoholism. Defects in the gene for the dopamine D2 receptor are also linked to myoclonus dystonia, a movement disorder. This protein contains 443 amino acids and has a gene map locus of 11q23 in humans [31].

A group of researchers from the Department of Health and Humans Services, the National Institute of Health, and the University of Massachusetts Medical School examined the role of dopamine D2 receptor in rhinal cortex in the visual learning process. It was seen if the ligand was not able to bind to the receptor, the effects of the ligand are not experienced. This lack of gene expression generated an inability to associate with the visual cues with the remaining work before the reward, the same visual learning deficiencies detected after the surgical removal of the rhinal cortex. A conclusion was made that the interference of the function of the dopamine D2 receptor in the rhinal cortex leads to a lack of correlation between the visual cues. This gene makes a receptor for a key brain neurotransmitter, dopamine. There was also reason to suspect that the dopamine D2 receptor in this area might be critical for reward learning. The researchers also confirmed that the DNA treatments actually affected the targeted receptors [32].

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