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4/21/2014

Procrastination Term Paper

Procrastination, a term that many have experienced in their life, is a much more complicated process than just the delay of an activity. There are many factors in one's life that influence the tendency to procrastinate besides one's personality type. Cognitive science has much to say about these processes and concepts. When one procrastinates on an assignment, there is a vast amount of firing within his or her neural network that determines subsequent behavior. Procrastination can be influenced by high self-esteem, low self-esteem, one's perception of others, and self-consciousness. Planning and goal setting also play a major role in one's likeliness to procrastinate, as emotion can be a major driving force or deterrent when mapping out a project strategy. Stress and self-induced anxiety also factors into one's decision making processes in a significant way. Because there are so many factors that influence procrastination from a cognitive science perspective, it is important to distinguish between types of procrastination and the root causes. Procrastination can be broken down into two main factors: avoidance and arousal, which are primarily driven by the influence of emotion. Avoidance and arousal can then be explored into five other areas including the neuroscience of the brain, high and low self-esteem, anxiety induced by procrastination, and the planning process.

Neuroscience

In his work, Joseph Ferrari notes that there is a correlation between procrastination and other relevant factors such as low self-esteem, low self-confidence, public image, feelings of anxiety, and self-consciousness (393). When studying procrastination from a cognitive science perspective, drawing a connection between human emotions and behaviors of procrastination is critical. Evidently, using Ferrari's work as an example, feelings certainly have a significant connection to procrastination. Concepts such as self-esteem, self-confidence, and anxiety are tied to emotion. Emotion is also closely tied into topics that are relevant to procrastination such as delay of gratification and overcoming stimulus control (Metcalfe 4).

Thus, to necessarily understand procrastination from a cognitive science perspective, one must understand emotions. From an objective approach, emotions can be better understood looking through the lens of a neuroscientists' view. Neuroscience has much to say regarding emotions, however, there is no prevalent single theory which unifies all science on emotions. Rather, there are several theories which encompass various schools of thought on emotions.

How does the brain create emotion? This is a necessary question to ask when assessing the neuroscience of emotions. There are two largely-adopted hypotheses which effectively provide an answer to this question. The first of the two hypotheses is known as the Locationist Approach. In essence, the Locationist Approach on emotion is centered around the idea that each part of the brain is designated to one specific emotional category (Kober, Lindquist, Wager 121). The second hypothesis that approaches emotion is known as the Psychological Constructionist Approach. This approach hypothesizes that discrete emotion categories are constructed by more general neural networks (Kober, Lindquist, Wager 121).

The Locationist Approach to emotion through human cognition relies heavily on the concept of emotional categories. Essentially, an emotional category is what one would think of as a "type" of emotion. For example, anger, disgust, fear, happiness, and sadness are all good examples of emotional categories (Kober, Lindquist, Wager 122). The Locationist Approach argues that various emotional categories affect human cognition and thereby behavior in a significant way. This is relevant when studying procrastination because procrastination is, in essence, simply a type of human behavior. The Locationist Approach also states that each emotional category is biologically inherited in humans. An emotional category in its purest state is one that cannot be broken down into smaller components because it is a basic, primitive category. The Locationist Approach treats emotions as "natural kinds" (Kober, Lindquist, Wager 122). That is to say, each emotion that exists as a grouping of states that can be identified by universal signals, events, or experiences. This perspective supports the notion that emotions can be influenced by experience and learning. However, schools of thought also exists that pose a developmental approach towards defining emotion. For example, some theorists say that infants are born with "first order" emotions that are evolutionarily predetermined (Kober, Lindquist, Wager 122). In other words, humans have developed an innate set of emotions through the process of evolution. These models still leave room for development through mental representations such as schemas.

The Psychological Constructionist Approach to emotion opposes the Locationist Approach in some ways. The central idea in the Psychological Constructionist Approach is that human emotions consist of psychological events which are comprised of basic, primitive psychological processes. This opposes the idea that mental representations can be confined to one specific area of the brain. The reasoning behind this approach to human emotion is that it has been observed through neuroscience that certain basic psychological operations are common across diverse tasks (Kober, Lindquist, Wager 123). The brain uses multiple areas to execute different processes. Another central idea within the Psychological Constructionist Approach is that the brain uses a network of firing neurons to execute psychological functions. This supports the notion that no one specific region of the brain is designated solely to any one particular emotion. Rather, the entire brain as a whole is designated to handling various emotions. The Conceptual Act Model states that emotions emerge when people take in sensory input from the body and their surroundings using pre-conceived knowledge of past life experience (Kober, Lindquist, Wager 123). Based on inputs, the brain makes initial predictions based on previous knowledge. The brain uses "psychological primitives", basic psychological concepts that cannot be broken down further, to assess whether or not its initial prediction should be modified. This process ultimately results in the "Core Affect" (Kober, Lindquist, Wager 124). The Core Affect is encompassed by the mental representation of bodily changes that are sometimes accompanied by feelings or some other degree of arousal. This is an important step to acknowledge because it draw the connection between physical inputs and mental representations regarding procrastination.

Through the analysis of neuroimaging, various regions of the brain have been attributed to emotions. Consistency and specificity are important concepts when analyzing emotion in the human brain. Consistency refers to consistent increase in activity in a given region of the brain as a result of displayed emotion in a given emotional category (Kober, Lindquist, Wager 126). For example, the brain exemplifies consistency when it is observed that the amygdala shows activity each time a person experiences fear. Specificity refers to a given brain region that only shows a significant increase in activity for one and only one emotional category (Kober, Lindquist, Wager 126). For example, the human brain shows specificity when it is observed that the amygdala shows increased activity when a person experiences increase disgust or sadness. These concepts show that while the brain does consist of neural networks, specific parts of the brain can be more attributed to a given emotion than others.

Various parts of the brain are more responsible for a given, specific emotion than other regions. Many parts of the brain have been identified as such. For example, the amygdala is linked with emotions of fear, the anterior insula is linked with disgust, the orbitofrontal cortex is related to anger, and the anterior cingulate cortex is related to sadness (Kober, Lindquist, Wager 135). Many of these regions of the brain have been known to relate well to classical conditioning. For example, it has been observed that humans show increased amygdala activity when exposed to neutral tones that have been previously paired with noxious noise blasts (Kober, Lindquist, Wager 130). The orbitofrontal cortex has been linked with response from an insult. These sorts of observations are crucial in making the connection between physiological inputs, cognition, and human behavior. In connecting emotions to procrastination from a neuroscience perspective, it is evident that emotions play an enormous role in influencing procrastination for many people.

Stress and Anxiety

Stress and procrastination exist in an extremely vicious cycle. Not only does stress lead a person to dread performing any task, it negatively affects his or her health, causing a further susceptibility to stress (Sirois et al, 2003). Although stress and procrastination are directly related, they do not increase indefinitely based on one other. Stress leads to more procrastination, but procrastination does not necessarily lead to more stress (Jackson et al, 2000). This leads one to infer that stress and procrastination exist in a feedback loop that maintains a stable level of procrastination – neither encouraging nor discouraging it.

A rise in participation of unhealthy and risky behaviors was noted in individuals who were identified as "stressed" (Sirois et al, 2003). Besides the side effect of being unable to complete most tasks while inebriated or otherwise intoxicated, such behaviors also cause an increase in future stress (Sirois et al, 2003). Stress is responsible for general unhealthiness (Sirois et al, 2003). It directly affects procrastination because of the way in which the human brain views future work (Sirois et al, 2003).

When procrastination is arousal-based, the impending task creates stress as it draws near. In order to cope with this stress, a person will seek some form of immediate stimulation and relief – thus causing more stress, ad nauseam. To avoid this negative effect, it is best to attempt to counter the stress by doing the work in small parts (Jackson et al, 2000). This will provide a similar boost of endorphins while actually accomplishing the task (Jackson et al, 2000).

When procrastination is avoidance-based, the simple idea of working on the task causes stress. To avoid this, the person will not continue to attempt the task. Time goes by with no progress and stress is not removed. In order to counter this stress and dissipate the procrastination, it is best to write out a plan and set sub-deadlines (Jackson et al, 2000).

Low Self-Esteem

Is someone who knows that he or she will succeed at anything susceptible to procrastination? Is someone who lacks confidence susceptible to procrastination? One's answer to these questions might be able to predict whether he or she is a procrastinator. While this might seem surprising to most people, a person's self-esteem can actually have a direct relationship with why he or she procrastinates.

Why are there consistently people who procrastinate in the working world? Many may assume think that others lack work ethic, but there is a high chance that more resides under the surface. There have been many studies on the reasons for procrastination, and it was found that there is a significant relationship between procrastination and low self-esteem. People with low self-esteem tend to feel incompetent, unworthy and inferior compare to their peers. They fear criticism from others and worry often about how others will perceive them. This fear eventually develops into procrastination, during which the person postpones tasks. This is a self-protective strategy to prevent negative feedback or criticism (Klassen 916). Having a low self-esteem is directly related to the fear of failure and people who are afraid to fail tend to be avoidant procrastinators. Avoidant procrastinators tend to delay tasks because they do not want to deal with the possibility of failing and not meeting their own expectations (Diaz-Morales, Ferrari 708). People with low self-esteem are very likely to procrastinate mainly because they want other people to acknowledge them and are afraid of being criticized if they fail to meet expectations.

In a paper written by Flett, Blankstein and Martin, it was proposed that procrastinators with low self-esteem tend to participate in behaviors that will protect self-presentation, and by procrastinating; they can blame their poor performance on something that almost everyone experiences instead of their own inabilities or imperfections (Blankstein, Flett, Martin 138). In a sense, procrastination serves as an excuse, which can be applied retroactively to a situation if an individual happens to perform poorly on a task. This desire to maintain a perfect image in front of other people is also supported by a study done by Ferrari. In this study, a group of procrastinators were randomly assigned to one of four conditions in which they can

choose whether to have a distracting noise present when performing a diagnostic or non-diagnostic task in a public or private setting (Ferrari 246). Results showed that forty-nine percent of procrastinators were more likely than thirty percent of non-procrastinators to self-impose a handicap, in which they chose to have a distracting noise present when performing the task. In a public setting, sixty-nine percent of procrastinators choose to self-handicap when the task was non-diagnostic of ability compare to thirty-five percent when the task was diagnostic of ability. In a private setting, seventy-three percent of procrastinators choose to handicap when the task was diagnostic while only twenty percent choose to handicap when the task was non-diagnostic. It is clear from the results that procrastinators tend to make tasks more difficult (self-handicap) than non-procrastinators because they want to have an excuse in case they perform poorly. The reason why they would create this excuse for themselves is because they fear that people might judge their actual abilities, which goes back to their low self-esteem.

In another study done by Ferrari, two-hundred and two young adults completed inventory surveys that measured decisional and behavioral procrastination, self-esteem, interpersonal dependency and self-defeating behavior. Results from this study showed that having low self-esteem was a significant predictor for both types of procrastination and that people with low self-esteem tend to have an interpersonal dependency. Interpersonal dependent individuals rely on other people for support, guidance, and acceptance (Ferrari 675). The fact that they are more likely to rely on others for making decisions contributes to their tendency to procrastinate even more. People with interpersonal dependencies often cannot make decisions for themselves; they have a low self-esteem and often question the legitimacy of their decisions. As a result they procrastinate in their decision making process, often waiting for someone else to validate their decisions before deciding.

Low self-esteem is a rather common trait among students in a competitive environment. Not only can having a low self-esteem be detrimental to one's mental health, it can also affect the way individuals handle assigned tasks and responsibilities. Many studies have shown that having a low self-esteem can often lead to procrastination in an attempt to protect image in front of others. People with low self-esteem are afraid of criticisms which leads to postponing a task in order to create the excuse that their subpar performance was due to the lack of time and not personal qualities.

High Self-Esteem

People with high self-esteem suffer from procrastination no less than people with low self-esteem. The same reasons lead them to procrastination as well: avoidance and arousal. People with high self-esteem avoid responsibilities by thinking of reasons not to fulfill them in the present; they purposely place obstacles in the way because they subconsciously do not believe they will do well in performing a given task. Therefore, a person with high self-esteem will make tasks seem impossible instead of suffering a blow to his or her ego for not doing the work well. Individuals with high self-esteem may

also enjoy, in accordance to the arousal theory, the boost or confirmation it gives to his or her ego when procrastinating and yet being able to succeed at the last minute. Both arousal and avoidance contribute to preserving and growing the ego of a person with high self-esteem. This process effectively creates a feedback cycle. The higher the ego the more the person will do to protect it, and unless stopped by failing at avoiding or arousal, the ego will only grow and demand more protection.

The avoidance method of high self-esteem procrastinators is known as self-handicapping. Self-handicapping is the practice of creating situations that guarantee one will not succeed. High-esteem procrastinators will often (unintentionally) adopt this method if they are faced with a task they may not be skillful at or may be extremely challenging to them.   They will do this due to the subconscious belief that they are inadequate to the task. In order to not be faced with failure due to inability, the high self-esteem person will put up obstacles (i.e., procrastination) to blame for their failure. To be able to say 'I did not have enough time to finish this' instead of 'I was not good enough to get a good grade' saves their self-esteem. It is a dangerous method, because challenging tasks are unavoidable, and the high self-esteem self-handicapper may be preserving their self-esteem but stunting their ability to learn and grow so that they may take on such challenges in the future. It is a cheat method, and whether the high self-esteem handicapper may or may not suffer a great loss from a few instances of self-handicapping, it does become an addictive cycle. (Ferrari, 455) The relief it brings to the ego and to stress on the subject makes it quickly became a fallback solution to any problem that proves mildly challenging. The amount of deliberately caused failures will then grow and eventually have some very serious consequences that may be too much for the inflated ego to run away from. The subject can either continue blaming circumstances and seriously damaging their lifestyle, but the only solution for improvement requires the subject to accept his or her shortcomings and work on them. However, this may be nigh impossible by the time the high-esteem self-handicapper realizes how bad the situation has become, because they will be too entrenched in their cycle of handicapping and their ego will be too fat and soft to take a hit.

The other branch of high self-esteem procrastinators are those that prefer arousal procrastination. The high self-esteem of this procrastinator leads him or her to overestimate his or her abilities and underestimate the amount of time needed to complete a task. This strategy may seem effective, and an individual may even be under the illusion that he or she works better under pressure, but this system can stunt one's abilities, lead to time mismanagement, and can fall through altogether. Like the self-handicapping phenomenon, the arousal procrastinator can fall into an addictive cycle of overestimating time and ability, as well as underestimating the difficulty of the task that only gets worse with time; the psychological payoff they get from confirming their abilities to pull off work in a pinch contributes to their ego, and the rush they get when doing the work quickly will incite them to continue with this method. (Fesbach 446) The damaging results of this can be simply stunting to an individual's ability to perform work at an optimal level and learning time management. This system can result in an incorrect estimation of time and ability and force the procrastinator to face failure. In this case the results are much like the self-handicapper, the subject who has

worked hard to preserve and protect their ego will not know how to handle failure. They can fall apart quickly, break down, or even transform into low self-esteem procrastinators in the future.

Considering differences in self-perception, low self-esteem and high self-esteem procrastinators share common causes. Firstly, they both fall prey to addictive cycles that provide temporary relief. Secondly, they both suffer from irrational thought and behavior (Laurel, McCarth, Skay, 317). They either so drastically swell or deflate views of self such that perception of the world is skewed. The best solution is to face whatever ailments are presented head on, and as early as possible so as not to be caught into the cycle. There are ways to trick the mind off of its addiction to the stress relief or rush even, and that is by manipulating the calendar so the due date appears nearer than it is, or dividing up a large task into smaller, less demanding pieces. The key to manipulating the mind of a low or high self-esteem procrastinator lies in his or her perception of time and ability to plan to meet goals. The more a procrastinator is able to envision his or her goals, the more likely it is that he or she will address the issue of procrastination.

Planning and Goals

Is there a reason why people pencil in every meeting and activity they do on a daily basis, even to the extent of sleeping time?
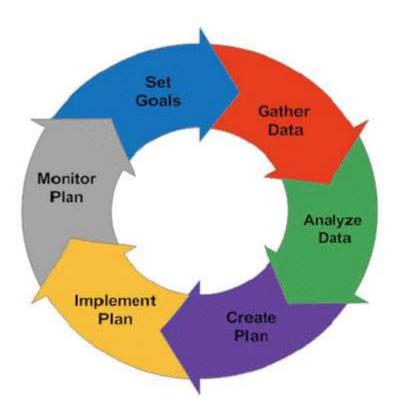

Does it seem unnecessary to keep a planner of even the most mundane and routine tasks? Do people simply brush-off their apathetic viewpoint towards organizational planning because they are not a "Type-A" personality?

Whether it is through school, work, or friendships, almost everyone can relate in saying that they know someone, or are that person, who thoroughly plans their life to a very fine detail. Why are some people inclined to embrace life through that angle, and

does it actually impact their lives in a positive manner? Keeping a very detailed "to-do" list usually won't have a negative effect in someone's success unless it's causing stress-related health problems and anxiety. The controversial question is if that behavior actually does produce more significant results in all aspects of life, including one's career, relational, and even physical fitness. Planning is defined as the act or process of making and carrying out tasks or goals and is a crucial topic that can be very impactful in one's life. The willingness (or lack thereof) to plan greatly affects the ability to complete tasks, and even further, to complete them well. As people of all ages and skill sets struggle with the temptation to procrastinate, planning and goal setting become very intriguing point's to explore. That being said, one of the main elements of why people tend to procrastinate is caused by the lack of planning or setting goals for the future (see fig. 1 above).

So what exactly is the connection between the cognitive inabilities to plan or set goals and procrastination? As stated before, the two main reasons behind procrastination is avoidance and arousal. Avoidance comes with an emotional influence of the fear at failing to perform the task where arousal is simply someone who is disinterested in performing the task, so that they prefer to put it off and engage in more short-term stimulating activity. An experiment by Morales and Ferrari found that "Avoidant procrastinators may fail to have a global vision of their life, perhaps trying not to face necessary skills that achieve future goals or present sub goals" (712). So because of the significance that emotion can play in the confidence of performing and meeting the expectations desired for a task, many avoidant procrastinators simply avert facing the future by not planning or preparing for it. However, one might think that there are many situations where planning is not necessary, which is a true statement. But, even if one has the competence to plan, they may not be able to even accurately predict the right amount of time it takes to complete a task. In a study by Robert Buehler and Dale Griffin, they took a sample of students and asked them to predict how long a school project would take them to complete once they began working on it. They found that the majority of students were overly optimistic in their time predictions, where most of the students were not able to finish their projects in time. "Both studies confirmed that the planning fallacy is a robust phenomenon, not limited to certain types of people, or certain methods of elicitation" (Buehler, Griffin 88). Instead of using logic and reason when trying to plan for the projects, the students would typically use mental analogies and map emotional feelings from previous situations to gage the current one. Because the emotions associated with their past projects usually reflected feelings of accomplishment and completeness, the students were more likely to project those feelings on the time span and planning on their current projects, giving them overly optimistic predictions. The emotional analogical mapping used to represent their past projects affected their ability to correctly evaluate their current project. So even if one does plan for the future, he or she will more than likely be pressured towards the deadline to complete it due to a lack of judgment in the planning process. Emotion plays a role in all aspects of procrastination and planning, where it drives fear into an individual to avoid planning, and even if one decides to plan, past experiences can negatively impact the accuracy of their ability to carry out the plan.

The reason one decides to either strategize or improve a situation goes much deeper than the enjoyment of a task; it can be decided by your emotional past (see fig. 2 above).

To break down and analyze even further the framework of planning and how it differs from person to person, we will look to a study that found that there are four different categories of how one is motivated to perform, and even views performance in relation to their peers. Conducted by Andrew Howell and David Watson, it involved 170 college students that were asked to rate six academic areas and how willing they are to procrastinate, the success they have in those areas, and the fear they attain when the professor hands the assignment back. The six areas analyzed were writing a term paper, studying for exams, keeping up with weekly reading assignments, administrative tasks, academic attendance, and school activities in general. After calculating the results from the students, they were given feedback from each student on the reasoning they chose their ratings for different subjects, and were able to pigeonhole most students into 4 different categories. Howell writes "Most recently, Elliot and McGregor (2001) conceptualized a '2 x 2 achievement goal framework', in which four types of goal orientation are derived by combining a mastery versus performance dimension and an approach versus avoidance dimension" (168). A student that takes a mastery approach is literally trying to learn as much as possible, to become an expert on the subject they are studying or an assignment they are trying to complete. However performance approach students are much more grade-based in their evaluation of a project, instead of attempting to ace the material they are being evaluated for, they strive to do enough to earn whatever grade they find satisfactory. A student that is approach based towards new assignments tends to start early, plan ahead, and take charge of group projects.

They find the challenge of unknown experiences exciting and tend to be more confident in the results of their work. Avoidant based students wait for the project to come to them; they usually start at the latest time possible, mainly due to the fear of unknown knowledge and of failing at the task. As you can probably guess, majority of the procrastinators we know are performance-avoidance students, waiting to start the task and relying on others for support anytime they experience an undiscovered barrier in the assignment. Howell writes, "Disorganization was positively associated with the mastery-avoidance and performance-avoidance orientations and negatively associated with the mastery-approach orientation" (173). And because these students never plan, they usually are extremely optimistic about finishing a task, and therefore may not complete it or have to rush to finish. The impact of planning also had an overall negative effect on the performance of those students who were avoidant. "Finally, grades were positively associated with mastery-approach and performance-approach orientations and negatively associated with mastery-avoidance and performance-avoidance orientations" (Howell, Watson 173). Not only can levels of emotion and confidence affect a student's tendency to plan for an upcoming assignment, it also conveys that students who do not plan tend to have a strong correlation with receiving low grades. You are at a clear disadvantage academically if you do not plan, and because of this a student will most likely procrastinate.

Whether one claims to be a type-A planner or consider themselves to be the most disorganized student throughout college, lack of goal setting and planning for anyone's future has a direct correlation with procrastination. Those who do not plan tend to be avoidant of facing the future, which emotionally maps them to concentrate on the present moment, until having to embrace that they have a short amount of time to complete strenuous work. As in most of our cognitive processes, emotion plays a major role in one's likelihood to start a project early, which can directly affect the outcome of your current situation.

In conclusion, procrastination can be heavily affected by the emotional state of an individual and can take on various forms. Avoidant procrastination and arousal procrastination demonstrate several similarities and differences. Self-esteem can factor into both forms of procrastination as it significantly effects one's behavior. When factors such as self-esteem and anxiety are coupled with emotions, complex cycles of procrastination are often formed. The neural networks of the brain and certain localized regions often develop in certain ways during this process. Firing and wiring of neurons can occur during cycles of procrastination as people develop. These neurological processes can work to produce analogical mappings that lead to future habits of procrastination. As a result, procrastination is a world-wide phenomenon that people struggle with on a daily basis, as it can greatly affect outcomes of situations in one's life. Channeling negative and fearful emotions can lead to more productive and early planning that allows one to face future projects instead of avoiding them. Managing positive emotions effectively can also improve an individual's levels of procrastination by allowing an individual to form more effective time management habits and better impulse control. Avoidance and arousal procrastination can be analyzed from several

vantage points such as neuroscience, self-esteem, anxiety, planning, and goals which allows for a better understanding of the emotional influence on procrastination.

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