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LETTER FROM THE EDITOR

Dear Psynapse Reader,

I am so excited to present our fifth issue of Psynapse: McMaster Undergraduate Journal of Psychology, Neuroscience & Behaviour. Within this issue, you will find the hard work of undergraduate students in relating to Psychology, Neuroscience & Behaviour.

I want to thank each one of you who worked on this issue. It would not have been possible without you. I know that the past couple of years has been difficult for us all. I am hoping that this issue will shed some light on the hard work that has been conducted throughout the pandemic.



To the executive team, I am so grateful for your support and dedication to this club. Your passion to showcase students' work has truly inspired me and I wish you all the best for the sixth issue.

To Freddy Bishay and the design team, thank you, thank you, thank you. You all came to the rescue and brought this Journal to life. I marvel at your creativity and determination to publish this issue.

To aspiring researchers and the authors of this issue, your work will continue to fuel the discoveries of tomorrow. Keep on asking questions, keep on breaking glass ceilings, and keep on following your passions.

All the best,

Abigail Fisher
Editor-in-Chief 2021–2022

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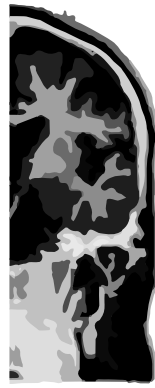
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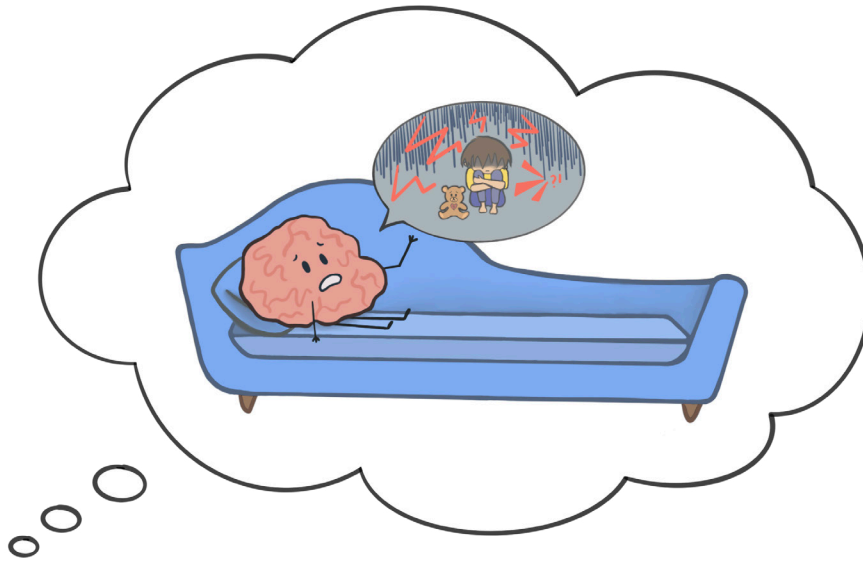


ADVANCED TOPICS/ESSAYS



Slipping Into Psychology:

Justice for the Influence of Freud & Freudian Psychoanalysis



by Sophia Marchetti

Introduction

When a student accidentally calls their teacher “Mom”, this is referred to as a Freudian slip. Freudian slips are unintentional language errors believed to reveal one’s unconscious thoughts or emotions. Sigmund Freud popularized this concept of the unconscious mind, forever impacting how we view the human brain. His theories and work have disseminated widely into the world of psychology and the understanding of the human mind. This essay argues that despite attempts at

invalidation, Freud’s work has influenced modern psychology in many invaluable ways. Modern therapy-based treatment of mental illness is only possible because of Freud’s advancements in psychoanalytic theories, challenging the dismissal of his work from modern academic psychologists. This essay further argues that due to the merits of his impact on modern applied psychology, Freud’s employment in practical fields like clinical psychology remains justified despite pressures to distance from his theories.

Psychoanalysis in Modern Psychology

Freud's work remains influential in modern treatment, and applied psychology and many Freudian psychoanalytic methods, which emphasize unconscious thought processes, are still employed among modern psychological practices. Freud's work on personality development in childhood, and defence mechanisms for ego-induced anxiety (referring to anxiety from negative cyclical thoughts), for example, remain relevant treatments in the 21st century.

Free association in talk therapy, developed by Freud, is still used in modern psychology. Often, the patient recalls childhood events that show causal relationships to their current problems or personality deficits (Psychology Today, n.d.; Rothschild, 2014). Freud defined defence mechanisms as unconscious distortions of reality to reduce the anxiety created by stress from the ego. Denial, repression, and sublimation are just a few of these proposed mechanisms used to alleviate tension. Defence mechanisms are explored in modern clinical and counselling psychology practices to overcome defences that have been put in place because of childhood trauma (Psychology Today, n.d). Psychoanalytic therapy practices that confront these mechanisms and draw from Freudian methodologies are still in use today through family systems therapy, dynamic interpersonal therapy, transference-focused therapy (TFT),

and mode deactivation therapy, among others (Kalita & Chrzan-Dętkoś, 2017; Levy et al., 2009; Rothschild, 2014). All these currently employed and popular practices acknowledge the importance of childhood, the unconscious mind, and repressed memories as popularized by Freud.

Freud's influence is seen in the development of general treatment methods for a variety of psychological conditions and their modern success. Medical reviews suggest that undergoing long-term psychoanalytic therapy for a year or longer (as Freud intended) decreases symptoms of mental illness dramatically (de Maat, et al., 2009). While there may be confounding variables that might additionally contribute to these patients' betterments, patients maintain their rights to medical autonomy. The choice of undergoing long-term psychoanalytic therapy proves to benefit the patient. Due to the autonomous nature of healthcare, if no harm has befallen patients while undergoing psychoanalytic therapy and they have experienced relief, then Freud's work remains a positive influence and tool in clinical and counselling psychology.

Away From Academia

Despite his positive influence on practical psychology, Freud's work threatened academic psychology, which presently relies on modern experimental methods to validate its theories and legitimize its title as a science. These modern

experimental methods often lean towards physical “proof” such as biomarkers for legitimacy. Scientific legitimacy is essential to academic psychology, especially in the western, meritocratic world, which promotes a scientific, evidence-bound zeitgeist. Modern psychologists believe that psychoanalytic theories challenge the successes and validity of academic psychology. Freud often did not follow any scientific method, yet his work in psychoanalysis gained significant traction in society (and in psychology textbooks) and was frequently cited in tandem with psychology (Schultz & Schultz, 2016). To deal with this threat, academic psychologists applied scientific methods to Freud’s theories of psychoanalysis in attempts to prove their scientific illegitimacy. From these studies, experimental and academic psychologists assumed that psychoanalysis was inferior to psychology (Schultz & Schultz, 2016). Even though archival research suggests that the design of these studies was questionable, their results sufficed for academic psychologists to confirm that Freud was no longer a threat to psychology because they could separate “false” psychoanalysis from “true” psychology (Paris, 2017). The biases in these studies, seen in struggles with replication and a lack of transparent history, are not regularly discussed, but with their supposed results providing the grounds for ignoring psychoanalytic concepts, the trend of dismissing Freud in academia has continued to manifest.

Today, this drive for scientific legitimacy persists. The *Diagnostic and Statistical Manual (DSM-5)* has removed most references to psychoanalytic concepts, including defence mechanisms, as psychology moves towards diagnoses validated by biological markers (Paris, 2017). There is an ongoing debate within applied psychology surrounding the use of the DSM-5 for this reason. The removal of Freudian concepts is a clear example of this “hard science” objective that psychology is constantly trying to reach. As new versions of the DSM are developed, supposedly changing with modern society and developments in the field of psychology, how can we be sure that these removals were necessary? Opler (2015), a psychiatrist at Long Island University, has offered that “at the present time diagnosis reflects a ‘cleansing’ of psychodynamic concepts/constructs”. Devaluing subjectivity, a central theme to the human psyche, has become key to this cleansing of psychological treatment, ignoring the complicated existence of dynamic human relationships between patients and those around them (Levy, 2009). A cleansing such as this is detrimental to the field of psychology and future advancements as it limits the scope with which advancements in treatment and research can be made. While diagnostics criteria have lent themselves to this academic dismissal, the DSM has no mention of treatment methods. Modern treatments of these diagnoses often still employ Freudian concepts such as talk

therapy or transference-focused therapy with proven success.

Freud's Merit in Modern Psychology

Regardless of this force pushing psychoanalytic methods away from psychology, I argue that Freud's methods have a justified use in clinical psychology and can supplement scientific psychological treatment methods.

Based on the success of his methods in long-term talk therapy, there is no clear reason why a clinical or counselling psychologist should reject these methods entirely. As suggested by Menand (2017), psychoanalytic methods originally became popular because "it did not abuse the patient's body, [...] and was arguably more humane than a lot of what was being practiced". Even if methods such as free association and discussing defence mechanisms were simply beneficial for their human suggestibility or placebo effect, their ability to provide benefits that transcend other treatment methods found to cause harm has made their use desirable over longer periods of time, throughout many generations. For example, even today, shock therapy is used to treat mental illness, but its benefits are complicated by its potential harms. Meanwhile, psychoanalytic therapy has been able to remain popular and beneficial without these consequences. Beyond the functionality and longevity of placebo and suggestibility, a recent meta-analysis discovered that 75%

of individuals in North America suffering from mental illnesses prefer psychoanalytic style therapy over prescribed pharmaceuticals to help overcome their problems (McHugh et al., 2013). By acknowledging these statistics, I am not suggesting that Freud's method should be considered superior to the current scientific advancement. Patient autonomy regarding treatment is a growing theme in clinical psychology and mental health. As such, Freud's methods should remain as an option and/or supplement for patients if desired among other proven therapy methods.

Additionally, the argument that psychoanalytic theories fail to be effective due to their lack of scientific method during development is fallacious. A lack of a scientific method in theoretical development does not necessarily implicate a lack of scientific validity or efficacy in modern use. This being said, I am not rejecting the fundamental nature of the scientific method in modern research. Rather, I am exploring the opportunity for Freud's non-scientific development of his theories being supported later in modern empirical studies. Although psychoanalytic methods are often ignored in efficacy studies, psychoanalytic treatments are supported by data. Kalita and Chrzan-Dętkoś (2017) found that over 37 recent studies and meta-analyses "unanimously suggests that psychoanalytic approach [involving in-depth talk therapy aimed at accessing unconscious thoughts]

is as effective as any other empirically acknowledged psychotherapeutic perspective” including, in some cases, in long term treatment. These findings are supported by other work on conditions such as borderline personality disorder under psychoanalytic treatment (specifically transference-focused therapy) has also found unequivocal efficacy (Levy et al., 2009). Unlike psychopharmaceutical treatment or physical stimulus treatments (for example, electric shock), the efficacy of certain psychological treatments can be due to a variety of factors, including ones not yet understood by modern psychology. Turning explicitly to hard sciences entirely ignores the observed efficacy of psychoanalysis and treatments that stem from Freud’s work and is inherently ignorant.

Conclusion

Freud had a significant impact on psychological science and clinical psychology. His work remains influential today, despite denunciation from academic psychology. There is no denying the merits of Freud’s work as an option in psychological treatment. Successful treatment of mental illness and other emotional disturbances through Freudian methods provides clear justification for the continued use of his ideas. As such, the argument stands that the work and ideas of Freud should continue to be used in clinical psychology. Yet, with the American Psychological Association completely removing

psychoanalytic ideas from the DSM, a question arises; if academia continues to dismiss the work of Sigmund Freud, how might this harm psychology in the future once Freudian techniques have been forgotten entirely? Moreover, how might the detrimental effects of an ever-scientific zeitgeist affect future generations and their ability to cope with mental health?

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by Connor Gibala

Learning to Forget:

The Role That Forgetting Plays in Effective Studying

You have read your notes over fifty times. You can recite the answer to every question on your study sheet. You feel ready. Yet come the midterm, you find yourself unable to recall the answer. While everyone has their own study habits, perhaps the most common method is to read and reread notes until you know them off by heart (Carrier, 2003). However, this method of studying leaves you vulnerable to overestimating how well you have learned the material. Your brain is designed to remember new information; as material is viewed repeatedly, it begins to be retained less effectively (Jacoby, 1978). Repeating your notes in your head does not mean that you are gaining additional knowledge, but simply rehearsing what you already know. Fortunately, there is a way to effectively retain material without reading it over and over again. There are two key components to effective information retention: breaking up study sessions (spaced studying) (Kang, 2016; Dunlosky et al., 2013) and promoting active learning (solving problems) (Jacoby, 1978). Distracting oneself in between study sessions combines these two concepts, ultimately enhancing information re-

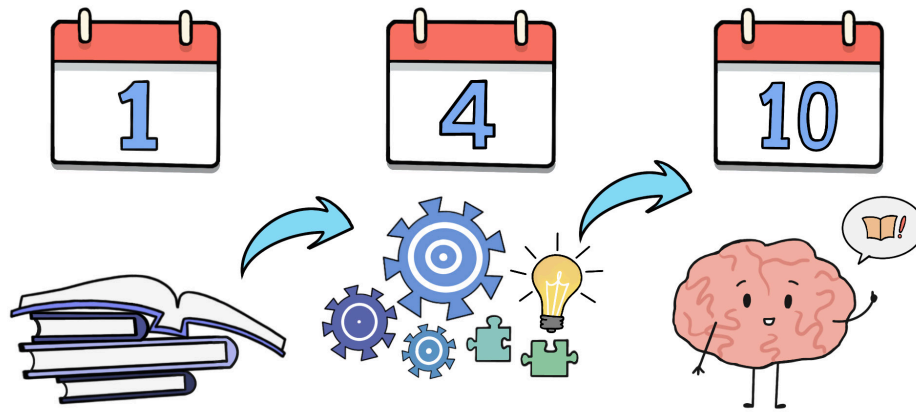
tention. In other words: in order to learn, you must forget.

Repetitive information is taxing on the brain. To combat this, it takes shortcuts to conserve energy. For example, human eyes orient more slowly to previously seen locations on a screen when scanning for cues compared with new cue locations (Klein, 2000). This effect (called Inhibition of Return) is thought to help the brain avoid unnecessarily processing familiar information too quickly (Klein, 2000). These cognitive shortcuts are used in all parts of life—reviewing notes is no exception. The brain uses a convenient workaround when studying; remembering a previously solved problem takes less effort than solving it for a second time. If someone is asked to add $37 + 15 + 12$, they would mentally calculate the answer. However, if they are then presented with the same problem, instead of adding the numbers all over again, they will simply recall the answer (Jacoby, 1978). A student who studies for a quiz by reading over their notes 20 times in one sitting may receive a poor grade although they feel they have learned the material. This feeling of having learned well is an effect produced by easily remembering the content on that 20th reading—the brain is, at the time, remembering well, but learning very little that will help on a later assessment. Information learned through repetition is so poorly retained because of a lack of heightened arousal: the idea that the more attention that is paid when

processing a new stimulus, the better it is remembered (Jacoby, 1978). Therefore surprising, new information is retained well—and boring, repetitive information is retained poorly. To counteract this, one should space out their study sessions to forget what they just learned. In spaced studying, the brain forgets the solution it originally used, which allows for the information to be relearned instead of remembered (Jacoby, 1978). Partially forgetting a chapter and returning to it presents the brain with an opportunity to relearn the content and therefore better retain it.

Summerfield et al. (2008) demonstrated the brain's ability to remember repetitive information instead of relearning it by examining brain activity when viewing repeated or alternating pairs of faces. When subjects were presented with two identical faces twice in a row, activity in the Fusiform Face area (FFA)—an area of the brain responsible for processing and understanding facial features—decreased relative to the trial in which two identical faces were separated by a distractor face (Summerfield et al., 2008). This result suggests that the brain reuses information from the original viewing of the face when it is presented twice in a row. While participants feel that they have learned the face twice, they will have only learned it once. When presented with a distractor face in between the identical faces, the brain must go through the effort of re-processing the face that was originally presented. Diverting attention from a

spaced studying



ACTIVE LEARNING

distracting task force one to forget how they originally processed the information, and therefore relearn the second viewing of the information in a new way. To promote active learning and better information retention, forcing the brain to focus on something new is key.

Schmidt & Bjork (1992) demonstrated the effectiveness of focusing on distracting tasks to improve later information retention through a study that required participants to remember made-up names. Participants were shown a whole name once and then asked to verbally complete the whole name when shown only the first or last name (Schmidt & Bjork, 1992). Trials were either blocked (no distractor names in the study phase)

or spaced (where participants had to read out random names before they were tested on the original name). Participants were scored on their ability to complete the names both in the study phase, as well as in the long-term retention phase a half hour later. In the study phase, participants in the blocked trials (no distractor names) were easily able to recall the whole names when tested (95% correct), whereas participants in the spaced trial had difficulty recalling them (41% correct) (Schmidt & Bjork, 1992). When tested a half hour later, the participants in the spaced trials in fact performed better (43%) than participants in the blocked trials (33%) (Schmidt & Bjork, 1992). Participants in the spaced trials exerted more effort to encode the

names when being tested in the study phase, as it forced participants to retrieve the whole name in different contexts (i.e., after the presentation of different names). This increased difficulty in learning ultimately transferred over to better long-term retention (Schmidt & Bjork, 1992). Participants in the blocked trials did not have to work hard to encode the names to do well in the study phase testing, which ultimately hurt their long-term retention (Schmidt & Bjork, 1992). This result suggests that using spacing (in the form of distractions) to promote forgetting of the whole names in the spaced condition hurt short-term performance but helped long-term retention. By using distractions to forget material in between study sessions, information retention can be increased. Forgetting can be achieved by something as simple as spending time with friends, going for a run, or playing an instrument. If attention is diverted away from the previous study session, relearning, and ultimately better information retention, can occur.

In addition to making the brain engage in relearning of information, breaking up study sessions forces an individual to understand information in a different way. Bjork and Allen (1970) had participants engage in two study sessions where they were asked to memorize a list of words. In between the study sessions, participants were given either an easy or a difficult distracting task: to read aloud slides of three or five random numbers,

respectively (Bjork & Allen, 1970). These distracting tasks served to take attention away from the first study session to see if forgetting more or less of the word list in the first session would result in better long-term retention. When tested on word recall after a 15-minute interval, participants who had their study sessions separated by the difficult task performed better than those with the easy task. These findings support the hypothesis of differential encoding: when encoding information into memory the brain creates a specific information pathway. (Bjork & Allen, 1970). If the same information is repeated quickly, then it will be processed using the same pathway (the brain's attempt to take a shortcut). However, if the brain shifts its focus to something else and is then required to shift back to encode the same information a second time, a new pathway is created. In this instance, there are two separate ways in which the information has been encoded, and therefore two separate ways it can be accessed for later retrieval (Bjork & Allen, 1970). The greater the number of ways information can be retrieved, the easier it will be to remember. So, although forcing oneself to create an entirely new pathway during studying may be more difficult, it allows for two separate understandings of the information that can be drawn on during testing.

Although counterintuitive, to study most effectively it is vital to forget some of the previous study session before studying

again. Purposely engaging in activities to promote forgetting your notes serves a two-fold purpose: to space out study sessions and promote active learning. Once some of the previously studied information has been forgotten in between study sessions, subsequent studying will result in the re-learning of the material, making it easier to remember in the future. In order to study effectively, you must forget what you studied in the first place. The role that forgetting plays in information retention can have far-reaching impacts on the ways that we view the importance of time management in studying. Perhaps the key to better studying is not how much we study our notes, but what we do in between. A well-rounded social life, full of distractions such as sports, friends, and novelty, may in fact improve studying far more than an extra hour in the library ever could.

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Emotion-Focused Therapy:

What the F is EFT?

by Alexandra Irvine

Introduction

Rates of mental illness are rising. A study in 2011 found that 1 in 2 Canadians have (or have had) a mental illness by the time they turn 40 (Smetanin et al., 2011). Accordingly, there has been a lot of research done into various methods of therapy in the last few decades to alleviate this. While this plethora of research is exciting, it poses a problem: how are individuals supposed to choose just one form of therapy from the dozens out there? Certain therapies such as Cognitive-Behavioural Therapy, Dialectic Behavioural Therapy, and various forms of Psychotherapy seem to be well-known. However, many other effective forms of therapy exist. One such form, which is becoming increasingly popular, is Emotion-Focused Therapy (EFT).

Key Concepts of EFT

EFT was first developed by psychologists Sue Johnson and Leslie Greenberg in 1985 (Johnson & Greenberg, 1985; Greenberg & Johnson, 1988). It is an empirically based approach that was developed through studying the processes

that make people change their thoughts and behaviours (Sloan, 2004). As its name suggests, EFT centers around the importance of emotions. Emotions are fundamental to how one sees themselves and interprets their own needs, goals, and values (Greenberg, 2004; LeDoux, 1996). Many types of emotional responses are associated with information that leads to so-called “adaptive functioning” (Paivio, 2013). For example, anger promotes self defence, protecting individuals from threat, and fear leads to escape from harm, increasing an individual’s survival chances (Paivio, 2013). Emotional responses such as these help people cope with and survive the stresses of life.

The amygdala, a part of the brain famously associated with emotional processing, plays a large role in creating emotional responses. When an event occurs, the amygdala acts as a pseudo smoke detector that preconsciously categorizes incoming information as either safe or threatening (Greenberg, 2004). After experiencing threatening events, the amygdala learns to recognize sounds, images, and other sensations associated

with that event as threatening (LeDoux, 1996). This is a useful adaptive function that allows a person to anticipate threatening situations quickly. However, once a connection has been formed between a particular sensation and threat, it is hard for the amygdala to unlearn that this sensation is threatening, sometimes leading to a ‘false alarm’ (LeDoux, 1996). When a false alarm occurs, individuals develop maladaptive emotional responses. Unlike adaptive emotional responses, which rightfully warn an individual about a threat, maladaptive emotional responses trigger a threat response to an unthreatening stimulus (Greenberg, 2006). The experience of maladaptive emotional responses often leads to psychological distress (Greenberg, 2006).

The goal of EFT is to transform these maladaptive emotional responses into adaptive ones (Greenberg, 2004). Research shows that emotion precedes cognition (Greenberg, 2006). Therefore, simply thinking about reasons why an emotional response is irrational cannot change that response: emotion must be changed with emotion (Greenberg, 2006). To change a maladaptive emotional response, clients are instructed to focus more closely on a subdominant adaptive emotion (or a “background” adaptive emotion) (Greenberg, 2006). Clients will use different techniques to focus on this subdominant emotion until it becomes dominant, thereby transforming their maladaptive emotion into an adaptive one (Greenberg, 2006).

Phases of EFT

Although not strictly followed by every therapist, EFT is generally conceptualized into four stages: (1) emotional awareness, (2) emotion regulation, (3) emotion transformation, and (4) reflecting on emotion (Greenberg, 2006).

In stage one, clients increase their emotional awareness to transform maladaptive emotions. In this stage, the client focuses on feeling the emotion they want to work with and its physical sensations as deeply as they can (Greenberg, 2006). This is important because an emotion needs to be fully felt to allow for a deep understanding of where it comes from and what it means to each person (Greenberg, 2006). During this phase, the client also learns how to utilize their emotion by decoding what it is communicating (Greenberg, 2006). For example, a client who is afraid of giving a speech might discover that their fear is acting as a warning signal of a potentially harmful situation. In this case, the client could be afraid of messing up the speech and facing negative social consequences. This process can be difficult for clients who are accustomed to keeping their emotions hidden; it may feel uncomfortable and may even cause the client some pain to become mindful of their emotions (Greenberg, 2006).

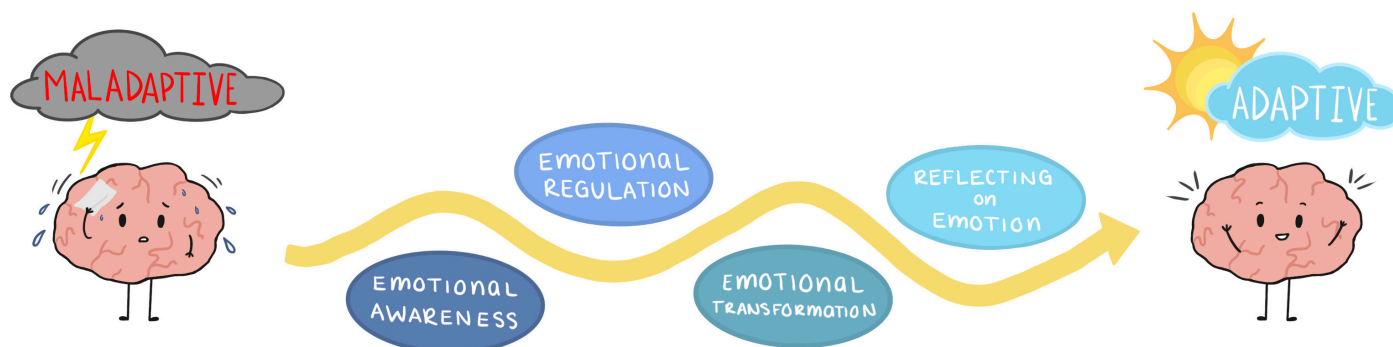
In the second stage, the client will learn to regulate and tolerate their emotions. During this stage, clients are taught techniques that assist them in establishing a working distance with their

emotions (Greenberg, 2006). Distancing themselves allows clients to learn from their emotions without being completely overtaken by them (Greenberg, 2006). Creating distance can also give clients the emotional space they need to increase the experience of positive emotions (Greenberg, 2006). In the case of a client who is fearful, distance will allow them to reflect on their fear without feeling overwhelmed or anxious, simultaneously making room for other emotions. Clients who find experiencing their emotions especially difficult are taught how to soothe themselves through breathing exercises, meditation, distractions, and various other methods (Greenberg, 2006).

Once a client feels they have sufficiently explored their emotion, they enter the third stage: emotion transformation. This phase is rooted in the finding that positive emotions have the power to undo negative emotions (Greenberg, 2006). Davidson (2000) found that withdrawal emotions (such as sadness) found on one

side of the brain are decreased following approach emotions (such as happiness) from a different part of the brain. Therefore, during this phase of therapy, clients are asked to find a subdominant adaptive emotion which they experience alongside the primary maladaptive emotion they have identified. The goal in this stage is to allow the adaptive emotion to take over the maladaptive one by focusing more attention on the adaptive emotion (Greenberg, 2006). For example, a client could identify feelings of empowerment alongside fear leading up to their important speech. In this case, the client would be asked to focus on their positive feeling of empowerment to reduce the strength of their fear. Techniques used to accomplish this include creating imaginary scenarios in which they feel the emotion, acting out something they would say or do if they felt the emotion, remembering a past situation in which they felt the emotion, watching the therapist express this emotion, etc. (Greenberg, 2004). The

EMOTION - FOCUSED THERAPY



therapist will suggest the use of varying techniques depending on their client's needs. This phase ends when the client is successfully able to transform their dominant emotion from a maladaptive one to an adaptive one (Greenberg, 2004).

Lastly, in the fourth stage, the client will reflect on this newly dominant adaptive emotion. The client will be asked to make sense of the adaptive emotion and become aware of all its elements (just as they did in the first two stages with the maladaptive emotion) (Greenberg, 2006). Some clients find it helpful to write down their thoughts about this adaptive emotion in a journal or to talk about the emotion (Greenberg, 2006). This last stage solidifies all the work the client has done and allows them to reflect on how they were able to rewrite their own narrative (Greenberg, 2006). Therefore, having successfully transformed their maladaptive emotion into an adaptive one, a client who was originally afraid of giving a speech would now feel empowered by this opportunity instead.

Conclusion

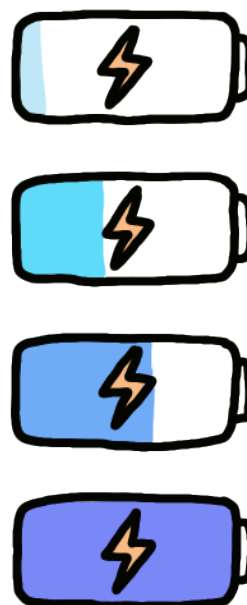
EFT teaches clients how to identify, explore, and cope with their emotions. By guiding clients through the processes of learning to identify unhealthy (maladaptive) emotions, fully experiencing them, and finally transforming them into healthy (adaptive) emotions, EFT helps to lessen a client's emotional distress. Although emotions are often ignored or seen

as a nuisance, they can be very powerful. Something as simple as paying attention to and learning how to understand one's emotions can have a significant positive effect on a person's mental health.

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Mental Health Amid COVID



by Belinda Tam

Mental health and its impact on the everyday lives of individuals has become increasingly important during the pandemic. No matter the situation, everyone can support one another by applying the information in this paper. This article will examine how to support ourselves and others through self-care and the dis-

cussion of the effects of procrastination on mental health.

Self-Care

The term self-care was first used in the context of nursing but has now expanded to be used in multiple contexts including (but not limited to) personal care, the workforce, and academia (Denyes et al., 2001). This section will discuss how

the concept of self-care came to be, the degrees of self-care, and how this information is important before, during, and after the pandemic.

In 1956, Orem “used the idea of self-care ... [to] express the view of human beings as attending to and dealing with themselves” (Denyes et al., 2001). Today, although the basis of this idea has remained consistent, it has evolved into taking care of the person in both the mental and physical states. This is all the more true during the pandemic as the physical well-being of an individual is at risk when not taking precautions like vaccinations and wearing face masks. This evolved definition is also consistent with the self-care in health term Levin & Idler used to refer to activities “individuals undertake in promoting their own health, preventing their own disease, limiting their own illness, and restoring their own health.” This definition demonstrates the general concept of what we know as self-care today and represents a small realm of possibilities that are part of Orem’s definition. Activities include (but are not limited to) spa days, time away from technology, or smaller habits such as maintaining hygiene and getting enough sleep. These self-care activities and many others help to restore physical and emotional well-being and many have been engaging with them regardless of the circumstances the pandemic poses. Engaging with these activities align with the definitions outlined above but also restore a person’s

well-being. Therefore, as the transition to a post-pandemic world, individuals may continue to do these activities privately or publicly depending on the activity. With that being said, although self-care activities were traditionally being conducted privately, the topic of self-care in academia and workforce has not been widely discussed. Therefore, raising awareness and getting a call from action from here on out is key.

The Degrees of Self-Care

The degree to which self-care will vary by individual and depends on the circumstances that they find themselves in. This is the case pre- or post-pandemic. Burnout is “characterized by feelings of depersonalization, emotional exhaustion, and a lack ... of satisfaction and accomplishment” (Lev & Owen, 1996). Research has focused on using self-care to prevent burnout and maintain the overall psychological wellness of an individual (Lev & Owen, 1996), especially as more people are feeling burnout more regularly today, despite various advantages (i.e. asynchronous work, none to minimal commutes, etc.) that may come with present work environments.

People encounter various situations in their everyday lives; due to this, we may either instinctively know what we need to feel better or not (in which case, please seek professional advice).. In terms of preventing burnout then, having emotional regulation is key as it is mainly a

result of external factors. It is important to note that emotional regulation will help with mental health but there is no substitute for self-care activities. An example of this can be our involvement in social circles: when a person's social circle is supportive, they can be positively influenced into making better decisions for themselves and further contribute to their own positive environment. The opposite is also applicable, where negative effects of the group can affect an individual even if their group does not intend it. Knowing what kind of environment you are in is part of having emotional regulation and prevents burnout. Another part of emotional regulation is identifying triggers and boundaries. By knowing this information, one can not only determine what kind of environment is best suited for them but further learn more about themselves in terms of principles and values.

Procrastination

Procrastination has been described as a “phenomenon that often entails negative outcomes with regard[s] to performance and subjective well-being” (Klingsieck, 2013). It has also been proposed “that not all procrastination behaviour [are] either harmful or lead to negative consequences” (Chun & Choi, 2005). This idea divides procrastination into two main categories – passive and active and procrastinators into three types of people passive, active, and non-procrastinators.

Passive procrastination is the traditional definition with the negative connotation while active procrastination can be seen as the positive kind where it increases/boosts work productivity. Non-procrastinators are individuals who do not procrastinate as they “constantly engage in planning and organizing ... [leading to] more realistic perceptions [and control] of time” (Chun & Choi, 2005).

Comparing active and passive procrastinators, the former tend to have decision-making problems, not complete tasks on time, and give up the task as their self-doubt feelings increase. They also “underestimate the overall time that [is] required to complete tasks” (Chun & Choi, 2005). In comparison, active procrastinators are individuals who prefer to work under pressure, “and they make deliberate decisions to procrastinate” (Chun & Choi, 2005). Furthermore, “[a]ctive procrastinators are persistent and able to complete tasks at the last minute” (Chun & Choi, 2005). With that being said, “...although active procrastinators procrastinate to the same degree as passive procrastinators, they are more similar to [non-procrastinators] than to passive procrastinators in terms of purposive use of time, control of time, self-efficacy belief, coping styles, and outcomes including academic performance” (Chun & Choi, 2005). This demonstrates that the main difference between passive procrastination and active procrastination is self-doubt, so emotional regulation is likely a significant contribu-

tor.” Therefore, the following sections of the paper will discuss the implications of procrastination on mental health and academic performance through self-efficacy, motivation, and stress-coping strategies.

Self-efficacy refers to “the belief that one can reliably perform the tasks that are required for successful goal achievement” (Chun & Choi, 2005). In conjunction with a lack of motivation, a person may not procrastinate. However, there are also two forms of motivation – intrinsic and extrinsic. Intrinsic motivation refers to a person’s internal drive while “[e]xtrinsic motivation ... refers to motivation that results from external [influences]” (Chun & Choi, 2005). Although both types of procrastination are negatively correlated with academic procrastination, it was demonstrated that “extrinsic motivation was necessary to prevent task delay” and intrinsic motivation led to more time devoted to the task at hand (Chun & Choi, 2005). Internal drive combined with external motivation can work together to prevent procrastination. However, either intrinsic or extrinsic in itself can prevent procrastination, it just depends on the person and the situation. In terms of having self-efficacy, emotional regulation plays into both forms of procrastination as you must have control of yourself to a certain extent or the task at hand will not be accomplished.

In an academic setting, students may procrastinate even more when studying from home during the pandemic as

there is no change in environment and they may not be able to find the internal drive to be able to get their tasks done. The root cause of passive procrastination leads back to students not having higher aspirations for themselves or simply laziness. However, more research needs to be done in order to explore how intrinsic motivation can be applied in our everyday lives. By doing this, it can lead to higher economic productivity, individuals feeling fulfilled and aiming higher, and overall satisfaction.

Academic Procrastination & Stress-Coping Strategies

The word procrastinate in the 21st century is common and prevalent for many people, regardless of demographic information. In the context of being a student, the feeling of anxiety and stress are common. As shown in Klingsieck’s (2013) study, students who procrastinated were more anxious before a test and during the semester generally. Although anxiety may not necessarily be correlated to procrastination, stress can have a negative affect on the performance of tests for students. This can be applied to other situations as well though, whether it is a presentation in the workplace, quality of work being submitted, etc. With that being said, this section will focus on the academic context but strategies are needed to deal with stress as well as procrastination. We will demonstrate this by showing various perspectives and how getting oneself to the

state of intrinsic motivation may be the only way to prevent procrastination.

There are many perspectives but this paper will only mention the differential and clinical psychology perspectives. The former perspective “understands procrastination as a personality trait”, and studies procrastination in relation to other factors such as mental health (Klingsieck, 2013). The clinical psychology perspective correlates procrastination with negative symptoms such as depression “...to determine whether procrastination is clinically relevant or not” (Klingsieck, 2013). With that being said, for an individual to understand these concepts and to identify which one(s) are relevant for them are two completely different cases. Therefore, this last section will discuss the logic of procrastination and steps to take when mitigating stress (for both students and working adults).

The logic of procrastination is “that a person procrastinates because [they perceive] the cost of delay to be small; if the person is busy, [they see] the cost of delaying as higher, and is therefore less likely to procrastinate” (O’Donoghue & Rabin, 2001). People may also procrastinate more in [the] pursuit of important goals than unimportant ones...” (O’Donoghue & Rabin, 2001). This concept can have larger implications attached to it as well – whether a person accomplishes the required tasks to achieve their goals or not. Other implications may include failing a class, not graduating, and pursuing one’s

life purpose/dreams after that.

According to this, it’s key for people to break their timeline into smaller increments to not procrastinate. Furthermore, long-term speaking, they should be finding an intrinsic motivator so that they will find a way to complete the task no matter what. This will remove stress caused by the to-do/project and can lead to the individual setting proper routines, feeling more fulfilled, and having healthier habits. This strategy looks to be the ideal in terms of getting more done and living a life that the individual is satisfied with. Future research can be conducted to find other ways to avoid procrastination. It is important to note however that if a person prefers active procrastination, which yields similar results to non-procrastination, flexibility may not necessarily be available to the individual. Further research is required to find out more about an active procrastination lifestyle. Lastly, there are most likely other strategies that can be utilized when avoiding procrastination but currently, the ideal for individuals and groups alike is to find a balance, have an intrinsic motivator, and keep their mental health in mind when making everyday decisions.

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It is rare to meet someone who has not heard of depression, has not experienced depression, or does not know someone who has experienced depression. Most people, however, do not know that several different types of depressive disorders exist. Two relatively common depressive disorders are major depressive disorder (MDD) and dysthymia. Although both disorders are depressive disorders and have some similarities, they also have quite a lot of differences in symptom severity, episode length, risk factors, and etiology.

Major Depressive Disorder (MDD) VS. Dysthymia

by Reihaneh Jamalifar

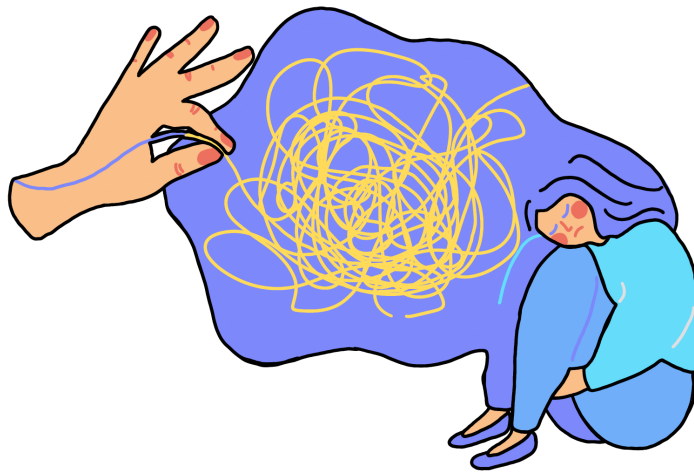
Dysthymia and MDD have similar symptoms. Both disorders involve depressive episodes in which individuals often experience feeling sad, depressed, hopeless, and/or worthless (American Psychiatric Association, 2013). MDD and dysthymia's depressive episodes may also involve experiencing fatigue, over/under eating, sleep changes, difficulty concentrating, negative affect towards the self, and a loss of interest and pleasure in activities individuals used to previously enjoy (American Psychiatric Association, 2013). In children, MDD and dysthymia can

present themselves as episodes of depressive mood or episodes of irritable mood (American Psychiatric Association, 2013).

While there are many similarities between dysthymia and MDD, there are also crucial differences between the two disorders. The main difference between these two disorders is in their episode length and severity. MDD involves one

Psychiatric Association, 2013). Hence, dysthymia has milder symptoms, but is more chronic than MDD.

Risk factors of depressive disorders often contribute to both chronic depression (e.g., dysthymia) and episodic depression (e.g., MDD), but more severe risk factors increase the likelihood of chronicity (Klein & Santiago, 2003). For instance,



or more severe depressive episodes (or irritable episodes in children) lasting a minimum of 2 weeks. However, dysthymia in children involves milder depressive episodes or irritable episodes that last a minimum of 1 year, and dysthymia in adults involves milder depressive episodes that last a minimum of 2 years (American

severe childhood adversity (e.g., parental neglect) is associated with dysthymia, and moderate childhood adversity is associated with MDD (Klein & Santiago, 2003; Lizardi et al., 1995; Riso & Klein, 2003). Dysthymia is also associated with more dysfunctional interpersonal relationships than MDD (Joiner, 2000). Hence, the de-

velopment of MDD may be more sensitive to milder environmental and psychosocial stressors in comparison to dysthymia, and dysthymia is associated with more severe environmental and psychosocial stressors in comparison to MDD. Additionally, family history is another risk factor associated with both dysthymia and MDD (Klein et al., 1995; Klein & Santiago, 2003). Dysthymia is associated with higher rates of mood disorders and depressive personality traits in first-degree family members in comparison to MDD (Klein et al., 1995; Klein & Santiago, 2003). Hence, dysthymia may have a larger genetic etiology than MDD; however, this association may also be due to shared environmental factors between family members. The more likely scenario is that the combination of both genetic factors and shared environmental factors between family members causes this association between family history and the two depressive disorders of MDD and dysthymia. Nevertheless, family history of mood disorders and depressive personality traits is a bigger risk factor for dysthymia in comparison to MDD (Klein et al., 1995; Klein & Santiago, 2003).

No specific biological cause has been confirmed to be necessary for neither dysthymia (Schramm et al., 2020) nor MDD. Both disorders, however, are associated with deficiencies or dysfunction of certain neurotransmitters (Griffiths et al., 2000), demonstrating that they both have some biological and genetic

etiology. However, environmental factors such as stress experienced early in life or chronic stress may trigger the development of either disorders by creating epigenetic modifications, changing cognitive schemas, and/or creating neurochemical alterations in the brain (Griffiths et al., 2000; Klein & Santiago, 2003). For instance, severe chronic stressors such as experiencing an incapacitating illness can trigger and maintain dysthymia even without any pre-existing vulnerabilities (Klein & Santiago, 2003). On the other hand, one may develop MDD after experiencing mild to moderate stress due to having a high genetic vulnerability. Hence, genetic factors and environmental factors both contribute to the development of depressive disorders; however, they have different levels of contribution depending on the individual case. MDD and dysthymia are two depressive disorders with many similarities, but also many differences in symptom severity, episode length, risk factors, and etiology. Even though MDD and dysthymia involve similar symptoms, MDD has less chronic but more severe symptoms than dysthymia (American Psychiatric Association, 2013). Family history of mood disorders and depressive personality characteristics is a bigger risk factor for dysthymia in comparison to MDD (Klein et al., 1995; Klein & Santiago, 2003). Moreover, both biological factors and environmental factors can contribute to the development of MDD or dysthymia (Griffiths et al., 2000;

Klein & Santiago, 2003). It is quite crucial for people to know more about different mental illnesses in order to become more cognizant of their own mental health and to know when to seek help. Moreover, it is critical to properly differentiate between different types of depressive disorders that can have differences in severity, chronicity, and etiology. These differences have important implications for treatment methods and patient outcomes. Different interventions are needed for each specific depressive disorder in order to create optimal improvements in patients' mental health.

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Mindfulness & Making Art:

Comparing Primary Research on Positive Psychology Interventions

by Madeline Komar

Introduction

Generalized anxiety disorder (GAD) is a disorder characterized by chronic excessive worry. The lifetime prevalence of GAD is 8.7% among Canadians, making treating GAD an issue of clinical significance (Watterson et al., 2018). Mental health treatments can be costly, so this research is essential to help individuals choose the programs best suited to their financial and healthcare needs. Additionally, many individuals with GAD are hesitant to seek out traditional therapies due to mental-health related stigma. Therefore, it is essential that researchers identify alternative, evidence-based interventions to improve wellbeing for people with GAD, especially since.

In this paper, research on two different interventions targeting people with generalized anxiety disorder (GAD) will be compared. The first research paper by Abbing et al. (2019), focused on art therapy as a method of reducing anxiety, improving emotional regulation and increasing wellbeing for people with GAD. Theoretically, the process of making art

helps clients process their emotions, providing them with a sense of control that helps counter their anxiety (Abbing et al., 2019). The second research paper by Hoge et al. (2013) evaluated how effectively Mindfulness-Based Stress Reduction (MBSR) interventions reduced anxiety symptoms and stress reactivity. In MBSR programs, clients are encouraged to observe their thoughts and emotions without judgement, rather than translate their internal experiences into an external artwork (Hoge et al., 2013). MBSR programs focus on helping clients develop a gentle, accepting attitude towards themselves and improve client's wellbeing (Hoge et al., 2013).

I argue that Hoge et al. (2013) provide more convincing evidence that their positive psychology intervention improves outcomes for people with GAD than Abbing et al. (2013). To demonstrate this, first I will briefly summarize the methodology, results and conclusions of each paper. Then, I will describe how the benefits of art therapy found by Abbing et al., could be attributed to concurrent external treat-

ments, the placebo effect, and differences in engagement between the control and treatment conditions, whereas the methodology of Hoge et al. has fewer issues.

Summary of Research Methods

Abbing et al. (2019) recruited a sample of fifty-nine women with GAD via social media advertisements and physical posters. Anxiety and comorbidity of other disorders were initially assessed using the Dutch version of the rater-administered Mini International Neuropsychiatric Interview Plus (Mini-PLUS). Abbing et al. collected self-report data on the subject's anxiety symptoms, emotional regulation abilities, and quality of life measured by the Dutch versions of the Lehrer Woolfolk Anxiety Symptom Questionnaire, the Difficulties in Emotion Regulation Scale, and the MANchester Short Assessment of QoL, respectively. Abbing et al. then randomly divided the subjects into two groups. The first group received ten-to-twelve individualized art therapy sessions with a licensed practitioner over the course of three months, while the other group was placed on a wait list and acted as a control condition. At the end of the three-month period, Abbing et al. once again collected data on the dependent variables of anxiety, emotional regulation, and quality of life as measured by the Dutch versions of the Lehrer Woolfolk Anxiety Symptom Questionnaire, the Difficulties in Emotion Regulation

Scale, and the MANchester Short Assessment of QoL, respectively. Three months after the end of treatment, Abbing et al. measured the dependent variables again for the final time. Abbing et al. found that emotional regulation improved, quality of life increased, and anxiety symptoms decreased more among the participants who received art therapy art compared to the wait list control, and these effects remained stable over time.

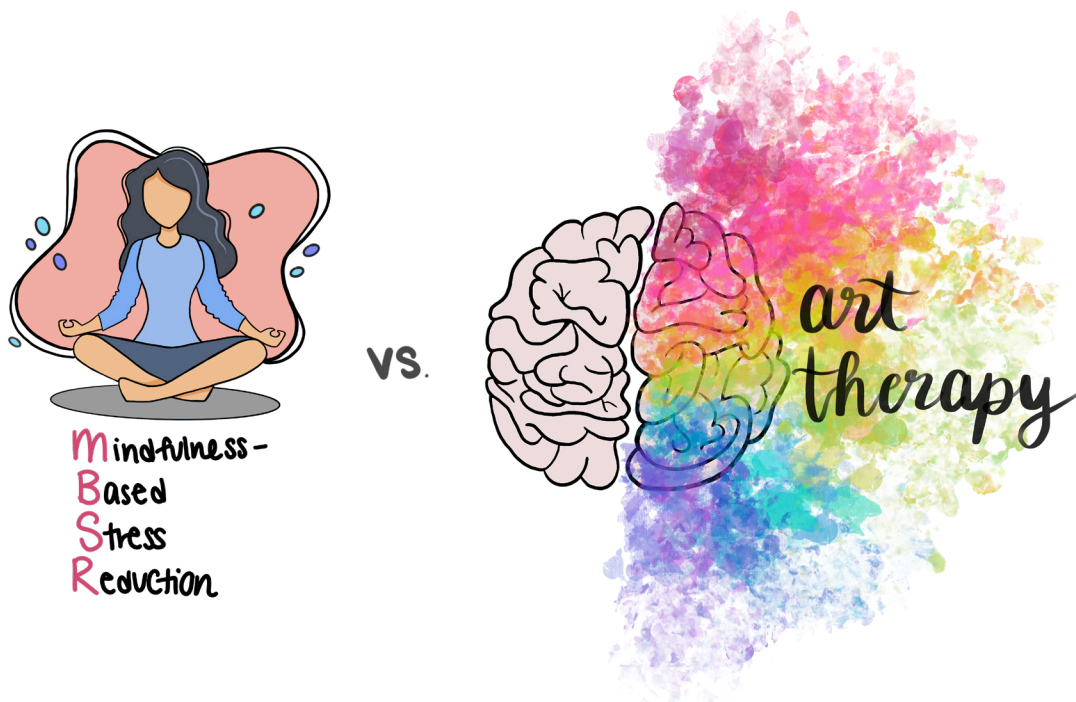
Hoge et al. (2013) recruited a sample of eighty-nine men and women with GAD via social media advertisement and physician referrals, and randomly divided subjects into two experimental groups. The first group received a MBSR intervention, and they were taught mindful practices such as deep breathing, gentle yoga, and body scanning. Body scanning involves focused one's attention on the feet, and gradually moving attention up through the body to the head. The second group was an active control group; participants in this group received Stress Management Education (SME) intervention and they were taught about causes, consequences, and methods of coping with stress (Hoge et al., 2013). Researchers discouraged participants from starting a new medication or therapy program during the study (Hoge et al., 2013). Participants were instructed not to discuss their programs with each other, hence Hoge et al. (2013) conducted a blind study. Hoge et al. measured anxiety symptoms using the Hamilton Anxiety Rating Scale, the

Clinical Global Impressions-Severity of Illness and -Improvement scales, and the Beck Anxiety Inventory. Participants also reported on their levels of distress and negative/positive self-talk after completing the Tier Social Stress Test (TSST), which involves an anxiety-inducing public speaking task. The MBSR groups had a greater reduction in anxiety symptoms, as well as less distress during the TSST compared to the SME group (Hoge et al., 2013). Hoge et al. concluded that MBSR interventions would benefit people with GAD.

**Concurrent External Treatments:
A Potential Confounding Variable**

The results of Abbing et al. (2019) appear to have lower validity because the researchers did not account for the influ-

ence of external treatment programs, a potential confounding variable. Abbing et al. only recorded the percentage of participants taking medication before the art therapy treatment began and failed to report on whether participants' medication changed while receiving art therapy, or during the three-month period after treatment. Given the small sample size (n=59), changes to the medications of a small number of participants could have dramatically altered the magnitude, direction, and statistical significance of the results (Abbing et al., 2019). Consequently, some of the benefits attributed to art therapy could be due to changes in medications that the researchers were unaware of. Since medications also affect anxiety symptoms and emotional regulation, it is uncertain how much the art therapy im-



proved outcomes for people with GAD, and how much improvement can be attributed to external concurrent therapies (Abbing et al., 2019).

Conversely, Hoge et al. (2013) did track participants' medications. Hoge et al. removed the data from three participants who started a new medication while participating in their research study. Removing these datapoints did not change the magnitude, direction, or statistical significance of the results (Hoge et al., 2013). Given that medications have been known to decrease anxiety symptoms, removing these data points prevented Hoge et al. from over-estimating the benefits of their MBSR intervention. By actively discouraging participants from beginning new treatments during the experiment, Hoge et al. measured and accounted for the influence of confounding variables in their study, making their findings more credible than the findings of Abbing et al. (2019). Possibly, removing participants who started medications concurrently would not have altered the effects recording by Abbing et al., but because Abbing et al. did not track medication use, their findings should be interpreted with caution.

The Placebo Effect

The apparent benefits of the art therapy intervention are likely enhanced by the placebo effect. Participants are more likely to report positive outcomes when they are aware they are receiving treatment, and negative outcomes when

not receiving treatment, resulting in the placebo effect (Reisenberg, 2019). Participants in the art therapy intervention study were either informed that they would be receiving art therapy or told they would be placed on a waitlist and receive no treatment (Abbing et al., 2019). Thus, the study was not conducted blind. Participants placed in the treatment condition likely expected their art therapy treatments to help them cope with GAD, while those on the waitlist expected their conditions to remain consistent or deteriorate. Participants' expectations then informed their reports, making it appear as though art therapy decreased anxiety symptoms, improved emotional regulation, and increased quality of life more than it did in reality. The presence of the placebo effect in the art therapy intervention study makes the results of Abbing et al. (2019) uncertain.

Unlike Abbing et al. (2019), Hoge et al. (2013), conducted a blind experiment, thereby reducing the probability their results were inflated by the placebo effect. Participants were unaware of if they were in the treatment or control group; participants were only told that they would be receiving MBSR or SME therapy. Both groups received treatment, thus individuals in both groups would have expected their GAD symptoms to decrease. The difference in effect between the MBSR and SME therapy groups is likely due differences in treatment efficacy rather than the placebo effect, as both

groups received some form of therapy and would have expected a positive outcome. Additionally, Hodge et al. required participants to undergo the TSST and describe their distress levels and self-talk (Hoge et al., 2013). Rather than relying solely on their expectations about whether their ability to cope with anxiety had improved, these participants experienced a stressful situation and then immediately reflected on their thoughts, feelings and behaviors during that situation. Hoge et al. (2013) better accounted for the placebo effect, so the evidence presented that MBSR reduces anxiety symptoms by Hoge et al. (2013) is more compelling than the evidence presented by Abbing et al. (2019) on the effectiveness of art therapy.

Differences in Engagement

The benefits of art therapy identified by Abbing et al. (2019) could be attributed to differences between the treatment and control condition in the number of hours spent engaging in artmaking. Abbing et al. (2019) recruited their participants using flyers and social media posts advertising art therapy, those who volunteered to participate in the study likely enjoyed creating art. Possibly, this study demonstrates the psychological benefits of engaging in more hours of enjoyable leisure activity rather than the benefits of art therapy. Making time for leisure activity improves quality of life, and the process of art making has been found to improve

wellbeing among women (Lopez, Pedrotto, & Snyder, 2019; Reynolds, 2010). It is unclear how often women in the wait list condition engaged in leisure activity, while the women in the treatment condition engaged in art making approximately once a week. Abbing et al. (2019) should have included a third control group for leisurely art making, where participants reserved the same amount of time each week to create art and were given the same access to materials. If the benefits recorded were greater in the art therapy group than the leisure group, Abbing et al. (2019) could have safely concluded art therapy is an effective method of helping women with GAD. The claim that the process of art therapy is responsible for psychological gains among women with GAD is uncertain because Abbing et al. (2019) utilized a wait-list control condition rather than an active control.

Since Hoge et al. (2019) used an active control group, there was no difference in number of hours spent engaging in leisure. The participants in the MBSR group learned to incorporate mindfulness into their daily lives, while the participants in the SME group learned about the stress-relieving benefits of humor, volunteering, and altruism (Hoge et al., 2013). Since both groups spent the same amount of time on instruction, likely the differences in outcomes between the MBSR and SME group are due to a difference in the therapeutic processes employed (Hoge et al., 2013). Thus, it is safer

to conclude that MBSR interventions reduce anxiety (Hoge et al., 2013).

Conclusion

Hoge et al. (2013) provide solid evidence that MBSR is an effective intervention for people with GAD as they controlled for external therapies, conducted a double-blind experiment, and matched the hours of engagement for the control and treatment groups. Conversely, the finding that art therapy interventions increase wellbeing and decrease anxiety could be explained by other factors which Abbing et al. (2019) failed to account for: people in the treatment condition could have shown improvement due to changes in concurrent external treatments, the placebo effect, or increased leisure activity. Although Abbing et al. conducted research with serious methodological issues, both art therapy and MBSR interventions represent exciting new potential treatments for GAD. Researchers must determine if art therapy itself improves mental health, or if certain aspects of art therapy such as increased leisure time produce similar benefits. Researchers could accomplish this by comparing the mental health benefits of engaging in art therapy to engaging in leisure activity for the same amount of time. Similarly, future research should identify why MBSR appears to be a more effective method than SME and compare the effectiveness of MBSR programs to known treatments for GAD such as cognitive behavioral therapy.

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FACT SHEET: PERSONALITY, TRAUMA RESPONSE, AND GROWTH

VANESSA LUK

HOW DOES PERSONALITY INFLUENCE HOW SOMEONE RESPONDS TO TRAUMA?



WHAT IS TRAUMA?

In psychology, trauma is emotional or psychological shock following a traumatic event (APA, n.d.). A traumatic event could be emotional, physical, natural disaster-related, or witnessing trauma happen to others. These events can be associated with a decrease in one's sense of security and eliciting feelings of fear, distress, or helplessness due to perceived threat to oneself (Science Direct, n.d.). Not all traumatic experiences lead to maladaptive behaviours or pathology, such as posttraumatic stress disorder, depression, or anxiety. Moreover, trauma, like any other significant life event, can elicit personality change.

The following infographic discusses the effects of trauma and factors that influence post-trauma responses, in an attempt to answer the question, "How does personality influence how someone responds to trauma?"

POSTTRAUMATIC STRESS DISORDER (PTSD):

PTSD is defined as a psychiatric disorder that may develop after a traumatic experience (NIMH, 2019). According to the DSM-5, the presentation of intrusion symptoms, avoidance behaviours, significant impairment in areas of functioning, and a number of other criteria may warrant a diagnosis of PTSD (APA, 2013).

There is a common misconception that trauma always leads to the development of the symptoms of PTSD. However, although traumatic events are frequently experienced (more commonly than one may think, especially in the Social Media Era, where traumatic events are quickly and widely shared), the development of PTSD symptoms is relatively rare; about 5-10% of the general population develop the pathology (Jakšić et al., 2012). In one study, it is estimated that the prevalence of PTSD amongst 60,000 US veterans was 13.5%, while some other studies indicate a 20-30% prevalence rate (Reisman et al., 2016). There are also many different types of PTSD.

LIST OF RELATED PERSONALITY TRAITS:

"Negative" Personality Traits (Vulnerability Factors):

Negative emotionality, neuroticism, harm avoidance, novelty-seeking, psychoticism (non-conformity, anger, hostility, irresponsibility, impulsiveness), self-destructive, affective, self-transcendence

"Positive" Personality Traits (Resiliency Factors):

Extraversion, conscientiousness, self-directedness, optimism, agreeableness, openness, self-actualizing (high positive affectivity, low negative affectivity), hardiness

DIFFERENT TYPES OF TRAUMA:

1. Type 1 – Acute trauma: single event trauma (Shuwiekh et al., 2018).
Ex. Car accident
2. Type 2 – Chronic trauma: repeated and prolonged sequence of exposure to traumatic events that stopped (Shuwiekh et al., 2018).
Ex. Childhood abuse
3. Type 3 – Complex trauma: continuous and chronic traumatic stressors (Shuwiekh et al., 2018).
Ex. Racial discrimination
4. Secondary trauma/ vicarious trauma – witnessing a traumatic event (Shuwiekh et al., 2018).
Ex. Witnessing a suicide attempt

DIFFERENT TYPES OF TRAUMA RESPONSES CAN BE INFLUENCED BY:

- Personality traits
- Typical behaviour patterns
- Worldview/ Schema
- Previous life experiences
- Presence or absence of previous trauma
- Type of trauma experienced
- Social influence and support

} more information
about vulnerability
and resiliency
factors below

POST-TRAUMA RESPONSES:

Emotional, psychological, somatic, and/or cognitive responses.

Common responses to trauma:

- Less severe: Fatigue, sadness, anxiety, agitation, blunted affect, fear, helplessness, guilt, depersonalization, tremors, difficulty concentrating, memory issues, (SAMHSA, 2014)
- More severe: intrusive thoughts/ flashbacks, severe dissociation symptoms, recurring nightmares, substance use, emotional dysregulation (SAMHSA, 2014)
- Most survivors demonstrate immediate reactions, but most generally resolve without major long-term consequences (SAMHSA, 2014)

Posttraumatic Growth (PTG):

PTG is defined as a positive psychological, behavioural, and/or worldview change following trauma or other adversities (Jakšić et al., 2012). This could include improved interpersonal relationships with others, increased personal strength and resiliency, and greater optimism. A more positive world view, amongst other factors, is associated with higher rates of PTG. PTG can occur simultaneously with posttraumatic disorders (Shuwiekh et al., 2018).

Maladaptive Coping Mechanisms/ Posttraumatic disorders:

- PTSD, anxiety, depression, phobic disorders, etc.
- Substance abuse
 - In a study by Toftdahl et al., they estimated a 17% lifetime prevalence of substance use disorder in individuals suffering from PTSD, estimated from a sample of 463,003 general psychiatric patients (Toftdahl et al., 2015).

Vulnerability factors:

Vulnerability factors are defined as attributes that increase the likelihood of negative outcomes after traumatic experiences (Jakšić et al., 2012). Those with more vulnerability factors are more likely to respond to trauma with more negative responses.

Resilience:

Resilience is defined as the ability to successfully adapt and cope during or after traumatic experiences (Jakšić et al., 2012). It is also sometimes defined as the development of 1 or 0 PTSD symptoms following a traumatic experience (Yuan et al., 2011). Those with more resiliency factors are more likely to respond to trauma less negatively and are more likely to demonstrate PTG.

PERSONALITY'S INFLUENCE ON HOW SOMEONE RESPONDS TO TRAUMA:

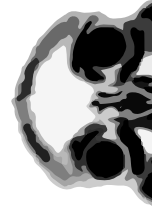
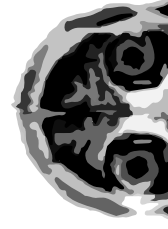
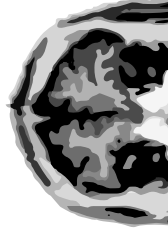
There is a general consensus across literature that personality traits have an influence on one's trauma responses, with a few exceptions. For example, a cross-sectional study in a population of Egyptian college students supported the hypothesis that personality play a role in trauma response (in particular, PTG), in relation to the type of trauma experienced (Shuwiekh et al., 2018). Neuroticism is typically agreed upon to be the most important personality trait positively associated with PTSD, as exemplified in a comprehensive systematic review of trauma studies (Jakšić et al., 2012). Several studies suggest that the prediction of PTSD symptoms can be related to low extraversion, high harm-avoidance, high novelty-seeking, negative emotionality, and self-destructive personality styles. Moreover, one study on military veterans suggests that those who were more avoidant and less emotionally stable (i.e. more neurotic) were more likely to use substances to cope. The same study also found that less extraversion and less agreeableness were positively associated with increasing PTSD symptom severity and maladaptive coping mechanisms (Contractor et al., 2016). There is a general agreement across literature that a lower score on "positive" personality traits can indicate a risk factor for PTSD.

On the contrary, there is a general agreement across literature that extraversion is positively correlated with resilience (Jakšić et al., 2012; Fauerbach et al. 2000; Lauterbach & Vrana 2001; Campbell-Sills et al. 2006). Several studies found that conscientiousness and self-directedness are positively correlated with resiliency (Campbell-Sills et al., 2006; Ghazinour et al. 2003, North et al. 2008). Another study identified that the self-actualizing personality is positively associated with PTG (Kunst et al., 2011). However, there are some inconsistencies with research results relating to extraversion, openness, and conscientiousness. Some studies found that positive personality dimensions were not associated with lower PTSD symptoms, and instead placed heavier importance on social influences, as concluded by a prospective cohort study on police officers performed by Yuan et al. in 2011. Finally, it is generally agreed upon that optimism is positively associated with more positive outcomes post-trauma, which may be due to how optimism is typically more associated with flexible use of coping strategies, acceptance, lack of denial, social support seeking, and positive reinterpretation (Jakšić et al., 2012).

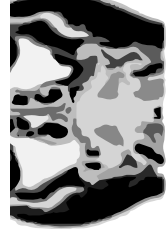
Ultimately, there is no clear-cut answer regarding how personality traits can influence someone's trauma responses. Each person is uniquely composed of many different factors that play interconnecting roles in influencing one's responses, thus implicating further areas of research to better understand the impact of personality on trauma responses.

**FOR MORE
INFORMATION
OR HELP,
VISIT:**

- DSM-5
- <https://ontario.cmha.ca/documents/post-traumatic-stress-disorder-ptsd/>
- <https://www.mentalhelp.net/ptsd/hotline/>
- <https://www.heretohelp.bc.ca/infosheet/post-traumatic-stress-disorder>



PRÉCIS





Synchronous Movement

by Mary Wiebe

The brain areas responsible for dance promote beneficial social behaviours. One such behaviour is movement synchronization. Synchronization relies on particular functions that the premotor cortex performs, such as visualization. After viewing another individual perform a movement, we can visualize ourselves performing the same movement. Visualizing a movement activates areas in the premotor cortex responsible for executing the movement, suggesting that visualization facilitates the planning of movement. Through planning, we can correctly replicate movement. Replication allows us to synchronize our movements with the movement of others, which increases social cohesion. Our capacity for increased social cohesion through synchronization suggests that dance evolved to strengthen social bonds.

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Brown, S., & Parsons, L. M. (2008). The neuroscience of dance. *Scientific American*, 299(1), 78–83.

Familiarity Predicts Beauty

by Alexandra Irvine



Humans lack a universal understanding of beauty; however, those who have similar experiences have similar beauty preferences. Whether it be faces, art, or food, what is average in a society corresponds to what is beautiful. An average is a single representation of all the experiences in a group. For example, those who live in countries where the average coffee is stronger prefer stronger coffee. As the average cup of coffee is much stronger in Italy than in Canada, Italians tend to enjoy espressos more than Canadi-

ans. When the average changes, beauty preferences change accordingly. These changes in the conceptualization of beauty occur throughout time and culture. Therefore, we can use an average to predict a society's beauty preferences.

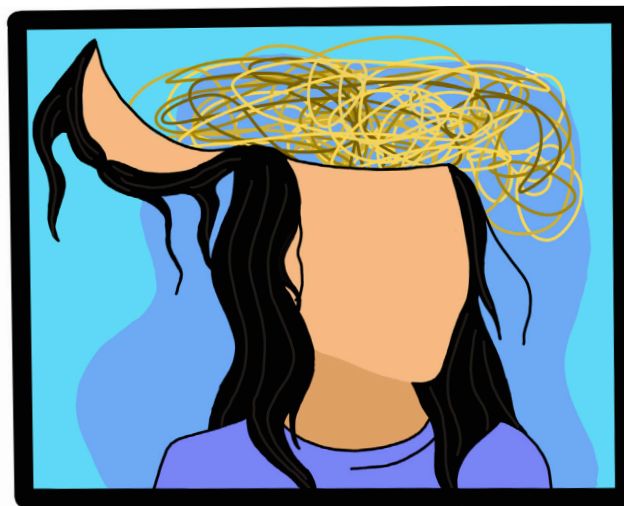
References

Maurer, D. (2021, January 28). Pretty Ugly: Why We Like Some Songs, Faces, Food, Plays, Pictures, Poems, etc., and Dislike Others. Lecture presented in PNB 2XD3 at McMaster University, Hamilton, Ontario.

Brain Connectivity Abnormalities in Major Depressive Disorder (MDD)

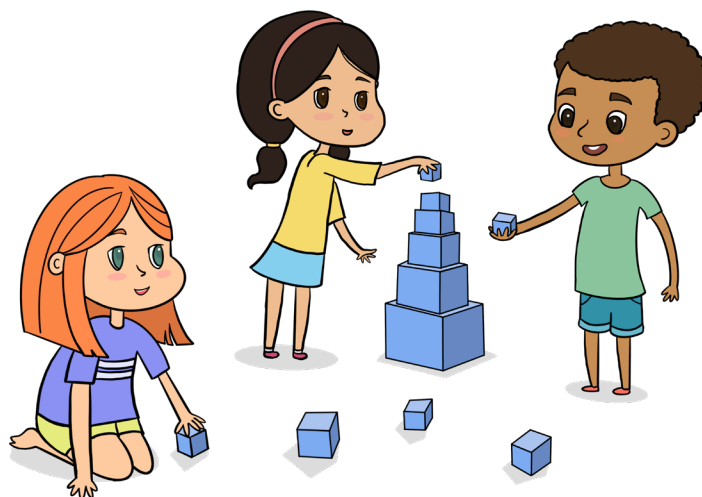
by Mazen Elkhayat

Patients with major depressive disorder (MDD) display fewer connections between certain brain regions compared to healthy controls. Reduced connections between the posterior cingulate cortex and the cerebellum result in negative self-perception by attributing characteristics, such as worthlessness, to oneself. Patients with MDD also experience difficulties in perceiving social information due to diminished connections between the frontal lobe and left temporo-parietal junction. Irregular connectivity between these areas impairs social cognition by perpetuating negative interpretations about other people's thoughts and emotions, reducing social motivation. These findings suggest that reduced brain connectivity correlates with cognitive symptoms of MDD. Identifying specific neural connections that contribute towards depressive psychopathology can inform treatments that restore brain connectivity.



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The Benefits of Montessori Education

by Sadanee Pathiranawasam

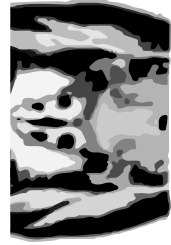
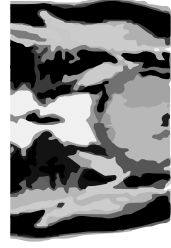
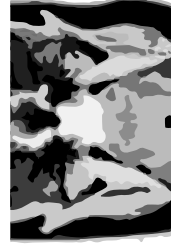
Montessori education adopts a child-centered approach to learning that implements multi-age classrooms, encourages student autonomy, and specializes in hands-on activities. This student-focused education style facilitates relationship building by teaching children how to resolve interpersonal conflict. The ability to resolve conflict strengthens peer relationships and fosters a sense of community that encourages empathy and respect between students. As a result, Montessori children respond more positively to questions about their peers than children attending public, private, or charter schools. The social skill development and resulting positive effects observed in Montessori schooling may provide evidence for education benefits that are equal to or superior than traditional schooling.

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ABSTRACTS



Time Perception and Mood Disorders

by *Yang Bo (Emma) Zhang*
& *Dr. Catherine Krasnik*

Background

Depressive patients frequently report perceiving time as passing slowly, while manic and hypomanic patients report perceiving time as passing quickly. However, existing investigations into whether mood disorders affect objective and subjective time perception more significantly than that of the systematic errors produced by healthy adults have yielded inconclusive results.

Purpose

The present meta-analysis synthesizes current findings on time perception in those with mood disorders, including studies with subjective measurements of time experience and those with objective measures of time estimation, time production, time reproduction, and duration discrimination.

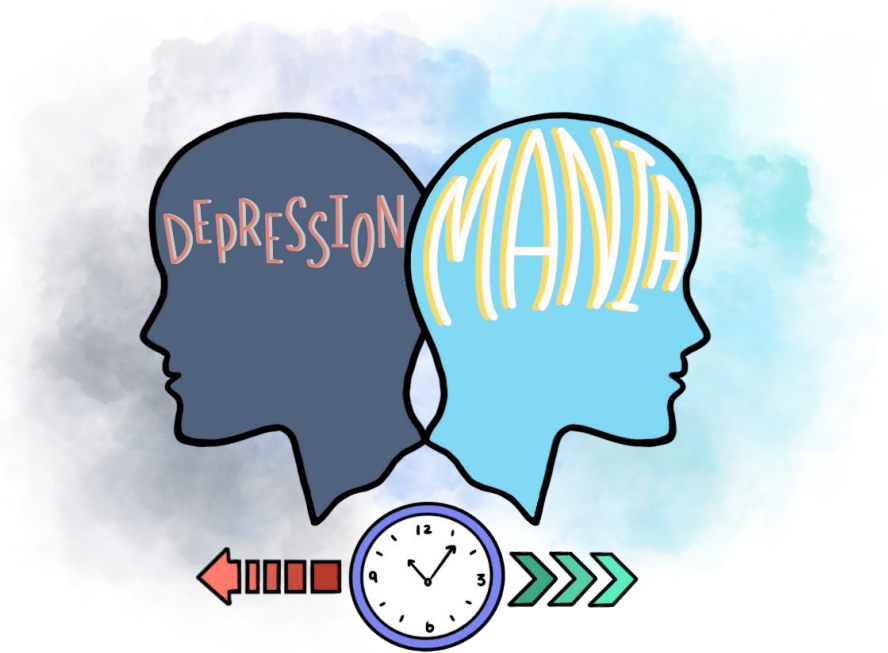
Methods

The current meta-analysis utilizes the framework detailed by Shelby and Vaske (2008). Medline, PsycInfo, and Web of Science were searched with key terms and strategies reviewed by a research librarian, and results were imported into Covidence management software. The in-

clusion criteria involved any publications in English that reported the mean and standard deviation of performances of both a control and a depressive or bipolar group on at least one of the five relevant tasks. Data was extracted, processed, then analyzed based on a priori subgroups and through a classical random-effects model on Review Manager 5.

Results

1711 studies were identified, and after duplicates were removed, 1299 records' titles and abstracts were screened. 68 full texts were reviewed, and 13 studies were analyzed. Statistically significant differences between controls and depressive groups included the latter performing worse at discriminating short (1 to 30 seconds) intervals, producing shorter medium (30 seconds to 10 minutes) intervals, and reporting slower time experience. Only the last two findings drew upon a sufficient number of (three or more) studies. Statistically significant differences between controls and bipolar (manic or hypomanic) groups included the latter estimating long (>10 minutes) intervals to be longer, producing and reproducing shorter medium intervals, and reporting faster



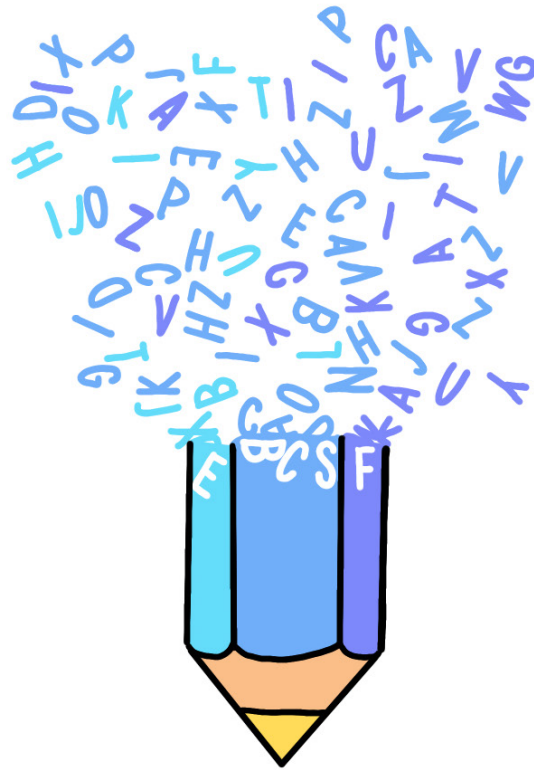
time experience. None drew upon a sufficient number of studies. The impacts of medications, diagnostic criteria, subtypes of depression, whether counting was permitted when performing objective tasks, and time perception in bipolar patients in general have not been investigated in literature. This contributes to the high heterogeneity that existed in most subgroup analyses with the exception of time experience and long interval time estimation task results for depressive groups.

Conclusion

Though those with mood disorders report distorted time perception, mood disorders have limited effects on medium interval time production tasks only, whereas other time perception measures remain unaffected by depressive and bipolar disorders.

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Is It What You Say, or How You Say It? Examining Sentence Voice in Ambiguous Writing

*by Yeganeh Soltani,
Kristen Arnold, Isaac Kinley,
& Dr. Sue Becker*

Headlines offer one of the fastest ways to obtain important information in a short period of time. However, the trade-off between eye-catching versus accurate news can result in misinformation with dangerous consequences. News headlines—often constructed in passive voice—potentially influence how readers assign responsibility to subjects in a scenario. Consider this tweet in the passive voice: “A reporter was hit by a pepper ball on live television by an officer who appeared to be aiming at her” (The New York Times, 2020). By switching to active voice and removing redundant details, the tweet becomes: “Officer hits

reporter with pepper ball”. Immediately, the switch from passive to active makes clear the true perpetrator of the main action and demonstrates how sentence voice manipulation could influence our perception of assigned responsibility. To our knowledge, this study is the first to examine the effect of sentence voice on the attribution of agency – the capacity to act. Investigating using explicit and implicit measures, we hypothesized agency for the true agent (A) and for the victim of an action (B), to differ depending on voice. In the passive voice, (B) may appear more responsible for causing the event to happen than (A), despite the opposite being true. Our implicit measurement of agency attribution, the Intentional Binding Task, found no observable differences between the observed action and the control condition, nor between the active/passive voice sub-conditions of the former. Moreover, our explicit measurements of responsibility scores, assigned to (A) and (B) within a sample scenario, found no significant change between active and passive conditions: participants attributed more responsibility to the true agent (A) regardless of voice. However, exploratory analysis of perspective scores provided insight into the degree to which participants imagined the given scenario from the perspective of each character. We found that participants had a higher tendency to take the perspective of (A) rather than (B) in the active voice condition only. As such, readers display higher

skill levels than predicted for identifying the agent. The results point to another possible interpretation: perspective-taking by the perceiver, rather than agency attribution, accounts for the discrepancy between the clarity of active voice and the ambiguity of passive voice. Therefore, future studies could analyze the influence of perspective-taking on perception through sentence voice. Subsequent results may shed more light on the misinformation phenomenon that occurs through ambiguous mediums in the news and notably, on social media.

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The New York Times (2020, May 31). Minneapolis: A photographer was shot in the EYE. Washington, D.C.: Protesters struck a journalist with his Own microphone. Louisville: A reporter was hit by a Pepper ball on live television by an officer who appeared to be aiming at her. <https://t.co/bxfzouilog>. Twitter. https://twitter.com/nytimes/status/1266935666274906113?ref_src=twsrc%5Etfw.

The Prevalence of Mood Disorders in Individuals Who Have Experienced Race-Based Trauma in North America: A Systematic Review

by Ayomide Popoola

Race-based trauma (RBT) results from the exposure to acts of racism and discrimination one experiences based on their apparent racial or ethnic identity. This trauma may include significant acts of racism or the accumulation of minor occurrences such as daily transgressions and perceived microaggressions targeting specific groups. Across the world, psychiatric disorders have become an increased economic burden on healthcare systems, with some of the most diagnosed disorders categorized as mood disorders. This public health crisis has led to adverse outcomes for individuals, communities, and organizations, as RBT has proven to cause sustained mental and emotional injury. Previous literature has shown potential for the “disguised” relationship between RBT and mood disorders. However, to the best of our knowledge, no systematic reviews have assessed these two variables on a large scale. This research is of great significance to psychologists, because in North America, Black, Indigenous, and People of Color (BIPOC) are presumed most vulnerable to RBT and its effects. A better understanding of how current and historic racialized

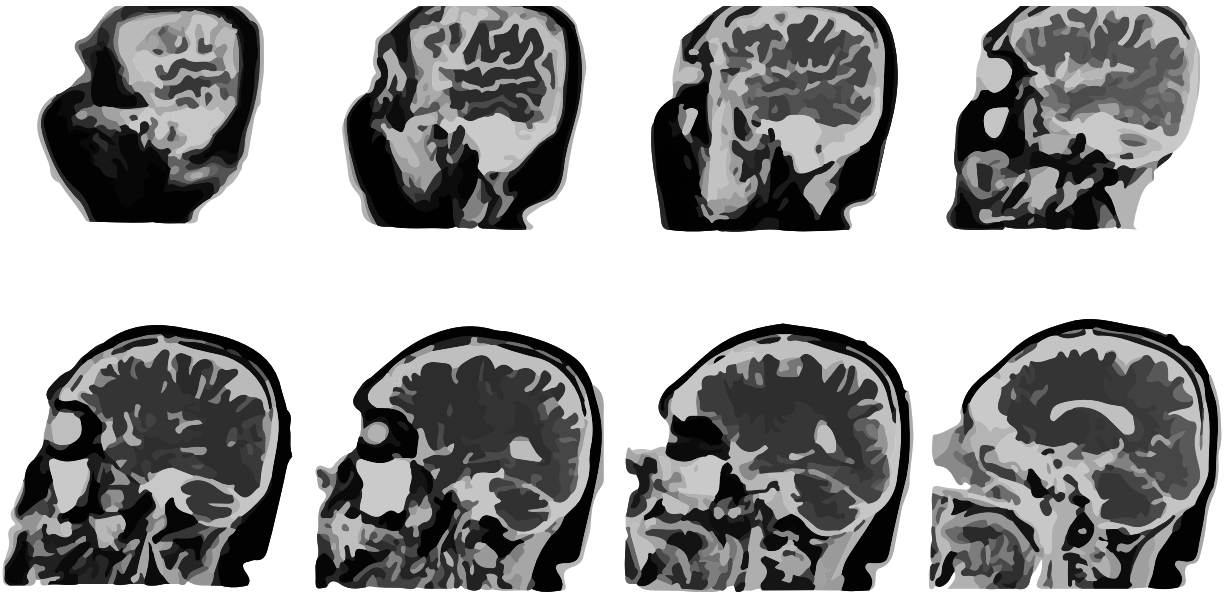
trauma is associated with mood disorders across these populations can help clinicians detect mood disorders earlier and develop culturally competent treatment options. This systematic review evaluates the association between RBT and mood disorders in North America. A total of 60 studies were included in this review. These studies were pulled from three databases: PubMed, PsycINFO and Embase, using the same search strategy. Experiences of RBT were associated with mood disorders in 81% of the studies included. Symptoms of depression were the most noticeable mental health outcome amongst all racial groups. In addition, secondary findings from our systematic review illustrated several other adverse mental health outcomes in individuals who have experienced RBT. These include post-traumatic stress disorder, anxiety disorders, conduct disorders, attention-deficit/ hyperactivity

disorders, and obsessive-compulsive disorders. Individuals who have experienced RBT in North America are at a higher risk of experiencing depressive symptoms and, subsequently, at a higher risk of developing a mood disorder over time. Racially sensitive trauma-informed practices have the potential to decrease the risk of racially minoritized individuals developing mood disorders.

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PSYNAPSE

ISSUE 005

