

Studying Maladaptive Daydreaming's Impact on Impulsivity

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Abstract

Maladaptive daydreaming usually involves compulsive and obsessive daydreaming where fantasies can be complex and be resumed and paused at any time. The studies have not used, as far as to this researcher's knowledge, cognitive behavioral tasks to measure MD. This study uses the maladaptive daydreaming scale – 16 (Somer, Soffer-Dudek, Ross, et al., 2017) (MDS-16) and the immediate and delayed memory tasks (Dougherty et al., 2002) (IMT/DMT) to measure the maladaptive daydreamer's impulsiveness. Although there were 157 that began the task, only 13 completed the entire experiment, with only one participant completing one block. Although the participant pool is small, data analysis has shown that those with a high MDS-16 score show high impulsivity; however, there were no participants that scored below a 50 on the MDS-16 scale, so no comparison could be made between a MD group and a non-MD group.

Keywords: maladaptive daydreaming, immediate and delayed memory tasks, maladaptive daydreaming scale – 16, impulsivity, ADHD, OCD, Psychopy, Pavlovia

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Maladaptive daydreaming (Somer, 2002) a condition which exhibits symptoms such as: Repetitive kinesthetic movement (e.g, pacing back and forth), isolating oneself in a dark room, and/or playing music (with headphones or speakers). The maladaptive daydreamer will have stories based on the real world, fantasy, or something original they have created, in their minds, that they resume when it is time to daydream. A maladaptive daydreamer can resume their daydream and remember just about every detail to the point where they will even remember where a background character was and what they were doing while the main character was continuing the main story. Maladaptive daydreaming (MD) is not the regular kind of daydreaming, it is an ongoing continuous story. To some individuals, it can feel as real as real life, possibly evoking real emotions in an individual, even though it is just a daydream. Although it is still a new field, thanks to the efforts of Somer et al., (2016a) in developing a reliable scale (Maladaptive daydreaming scale) we can measure MD.

As the name suggests, the maladaptive in maladaptive daydreaming means that there is distress caused by this activity. In many individuals with MD, there is a high level of obsessive behavior and issues with attention which lead many who sought treatment to be diagnosed with attention deficit hyperactivity disorder (ADHD) and/or obsessive-compulsive disorder (OCD) (Somer, Soffer-Dudek, & Ross, 2017). Those with ADHD and OCD are commonly known to have high impulsive behavior; to measure this one aspect of MD would be beneficial to understanding MD further. Although Dr. Somer et al., (2017b) and Dr. Biegelsen believe that the inattention and obsessive behaviors that are exhibited by individuals are because of MD, until MD is better understood, it is in the opinion of this researcher that further testing be done to see if the ADHD and OCD symptoms are explained by MD or if the comorbidities of ADHD and

OCD stand on their own. If, however, the ADHD does stand on its own, Wiklund et al. (2017) found that those with ADHD and lack of impulse control, value action speed over action accuracy. Although the study was about ADHD and entrepreneurship, it still speaks to ADHD characteristics, and in this case, I am sure that it is possible for this to affect the immediate and delayed memory tasks in the current study.

Among the tools used for studying impulsivity, for this research study, the immediate and delayed memory task (IMT/DMT) (Dougherty, Marsh, & Mathias, 2002) seems like a good fit. The IMT/DMT tests are designed to record how individuals control themselves when they must only react when they see a similar number or a number they needed to remember. The IMT portion requires the participant to react only when they see two numbers that are the same in a row, the DMT requires for the participant to keep the first number in mind and hold it until they see the number again at the end. The IMT/DMT seems to be reliable in recording and measuring impulsivity in individuals.

Somer et al., (2017a) conducted a study to see if any comorbidities come with MD. Many patients with MD that went in for treatment, were being ignored, dismissed, or diagnosed with a related disorder (Somer et al., 2017). Sixty-nine participants were selected and were administered the maladaptive daydreaming scale (MDS) to determine if participants have MD. A score of 50 was determined to be a reliable indicator of MD. Fifty-nine of 69 participants received a 50 or higher score ($M = 72.11$, $SD = 11.45$). Results showed that of the 39 participants, 30(76.92%) had attention deficit hyperactivity disorder (ADHD) and 21 (53.85%) had Obsessive-compulsive (OCD) and related disorders. It was noted that the participants believed that their ADHD and OCD behaviors were because of MD, in a way suggesting that their need to daydream is distracting and desirable enough, that it portrays itself as OCD and

ADHD. This might hold some merit as 23.1 % of the participants were not diagnosed with ADHD and OCD rates of 25.6% are not that significant; however, it is, again, in the opinion of this researcher that without further cognitive behavioral tasks testing those with MD, it cannot be said with full certainty that the symptoms of ADHD and OCD in those with MD are specific to MD.

To get a better understanding of MD I believe that it is best to look at other daydreaming terms such as mind wandering and to separate the two. Mind wandering can be thought of a state of thought when an individual experiences a lack of engaging stimulus (Mason et al., 2007). Mason et al. (2007) worked with participants where a visuo-spatial working memory task on days 1-4 during the study and once the study was over, they used an fMRI machine to scan the participants brains. They found that once there was no need to put too much energy into focus and detail, the brain goes into an auto pilot of sorts. Subjects with MD; however, do not seem to show a lack of focus while daydreaming, it is purposeful and shows much attention to detail. Daydreaming and mind wandering can share characteristics, especially when it comes to demanding tasks.

In contrast to Mason et al. (2007), to my understanding, Marcusson-Clavertz et al., (2016) suggests that in some cases, more demanding tasks result in more mind wandering. Their research focused on using a sustained attention to response task (a go/no-go task) and a working memory task to study their participants. If my understanding is correct and mind wandering increases depending on the difficult of the task, then there is a chance that those with MD might show some differences in their responses to the IMT/DMT. The IMT/DMT was 20 minutes long, with each task being 10 minutes. Having to keep a sustained focus for 20 minutes for people who are prone to daydreaming, could result in more errors. Marcusson-Clavertz et al., (2016) did

mention; however, that how a participant views their daydreaming habits as either negative or positive, might have an impact on their attention and those who view their habits as negative, show poor inhibition. This conclusion is yet another contrast to an older study by Killingsworth and Gilbert (2010) who asked participants randomly in the day about their mind wandering and if they were happy. They concluded that more mind-wandering correlated with far less happy individuals. The current study did not include questions about how they perceive their daydreaming and their mood, but it might be valuable to include these questions in the future.

If mind wandering does affect learning and memory abilities, then tasks like the IMT/DMT will show those deficiencies. Sanchez and Naylor (2018) reported that when participants were given scientific knowledge of an area that they had very little knowledge about, those with tendencies to mind wander showed clear deficits. Participants were given information about plate tectonics from an Earth science text and later were asked to write about why Mount St. Helens erupted (which was never mentioned in the text). They saw where those who mind wandered, had more words written down and included wrong information more than the non-mind wandering group. If this is the case then a strenuous activity like the IMT/DMT might also result in more key presses, if the individual with MD daydreams about other things besides their main fantasy during the task and is unsure if the number they are seeing is the same as the one that came before. Delaney et al. (2010) showed that daydreaming about old memories could further disrupt memory for current events. Delaney et al. (2010) found that those who daydreamed about memories that happened a long time ago, affect their memory at the present. If during the DMT a participant were to daydream about a long-ago memory, there is a chance that they could miss the target number.

Stress, Sleep, and Emotional Coping Abilities

There seems to be a common theme among daydreaming and mind wandering that the more one daydreams and drifts away from the task at hand, the more inaccurate their responses become. Baird et al. (2012) found that in simple tasks that allow for some break, allowing for mind wandering increased problem-solving skills and that by engaging in tasks that facilitate mind wandering seems to be beneficial for this group, but as tasks get more difficult benefits quickly dwindle. Unfortunately, tasks like the IMT/DMT can be quite difficult and do not require or allow for much creative solutions in responses. For someone with MD or tendency to daydream/mind wander, not having enough time to figure out a pattern or a solution, this might lead to more responses out of frustration or no responses at all until after some experience with the task.

In the time that this paper was written, a global pandemic is raging in the world. As more people are required to stay home, they are finding ways to cope with stress and lack of social interaction. COVID has been shown to affect those with MD even more severely with individuals reporting severe levels of psychological distress and dysfunction (Somer et al., 2020). Those with MD have a hard time maintaining their daydreaming when there are other people around, especially in social areas (Somer et al., 2016b) and due to COVID-19, being required to stay home this might allow for their MD habits to grow. With having to stay home and many studies being conducted through online means, it is possible that studies like this one, could suffer negatively due to an increased level of stress and maladaptive behaviors associated with staying at home.

Handling psychological stress and emotional coping skills are a trend with those who fall into the MD disorder; however, there has been some development into subcategorizing the disorder. Immersive daydreaming has been an emerging sub-category among the maladaptive daydreaming community to separate those who have the negative aspects of maladaptive daydreaming and those who can enjoy daydreaming without their lives being interrupted. Immersive daydreaming may be thought of as a healthier alternative to MD, but immersive daydreaming does not seem to be a better way of regulating emotions and stress compared to MD (West & Somer, 2020). With high levels of stress and emotional dysregulation, handling tasks like the IMT/DMT could be affected, especially if stress induces more daydreaming (Atli, 2016).

Dujić et al. (2020) investigated how maladaptive daydreaming affects psychological stress. Their results indicated that those with maladaptive daydreaming are prone to riskier decisions and have a harder time with developing coping strategies, especially who are male and score high on the MDS. This study could provide some background explanations if those with MD would have more responses than those without MD in cognitive behavioral tasks measuring things like impulsivity. The IMT/DMT can get tiresome and/or stressful, lack of coping mechanisms that push an individual to daydream during a task could result in less responses or more incorrect responses due to taking chances at responding to a stimulus such as the ones in the IMT. As the previous research cited in this paper, stress again comes into play. Alenizi et al. (2020) found a correlation between those with maladaptive daydreaming and generalized anxiety and lower GPA scores. Stress and reduced performance seem to be a common connection with those that tend to daydream and seem to increase when daydreaming is used to find creative solutions to problems (Yamaoka and Yukawa, 2020).

The lack of studies on maladaptive daydreaming does not help those who are suffering from it. Although this topic is in its infancy and is gaining some popularity, the current studies have not utilized the wide range cognitive behavioral tasks that could fill the gaps of knowledge. This is not to downplay the importance of previous research that has been done in the least, the field is still new and requires as many studies as possible to find ways to help those who are being negatively affected by this condition. For this study, I predicted that higher MDS – 16 scores will correlate with higher incorrect responses to IMT/DMT, and those with higher MDS – 16 scores will have higher attempts in general with the IMT/DMT. The overall aim of this study was to see how those with MD compare to those without MD and hope to establish interest others in using other cognitive tasks to study maladaptive daydreaming as well.

Method

Participants

Participants were recruited through social media: Facebook, Instagram, and reddit and word of mouth through professors to their students and by anyone who would share the posts on their social media accounts. The recruitment ad had a link for the participants that directed them to the study that was hosted on Pavlovia (*Pavlovia*, n.d.). Any participant that was the age of 18 and older were able to click on the link and participate in the study. Participants were not given incentive to participate in the study. There was a total of $n = 14$ participants who were predominantly female (79%). There was one male, one non-binary, one demi-girl, and one who preferred to not answer. Participants were between the ages of 18-28 and all scored at the maladaptive daydreaming scale's cut off score of 50 or over ($M = 108.79$).

Participants were given the MDS to determine their MD score and were given a modified version of the IMT/DMT through Psychopy which measured the participant's impulsivity. To

study the independent variable, every participant was required to take the MDS. Taking the MDS would separate those with probable MD and those with non-probable MD. Every participant was also required to take the IMT/DMT which would measure how well they can control their reactions to the stimulus. By taking the MDS and the IMT/DMT, we would be able to see how those with probable MD scored against those with non-probable MD by comparing their response times, correct and incorrect IMT/DMT responses, and how many times they pressed the response keyboard key *space*. Unfortunately, roughly 13 participants finished both the survey and the IMT/DMT and one completing just 1 block of IMT/DMT.

Measures

16 – Item Maladaptive Daydreaming Scale

The MDS – 16 (Somer, Soffer-Dudek, Ross, et al., 2017) is a 10 – point self-report scale that ranges from 0% to 100% and asks questions about daily behavior and emotions associated with daydreaming. The MDS – 16 has shown stable internal consistency and temporal stability with test – retest reliability ($r = 0.92$) (Somer, Soffer-Dudek, & Ross, 2017). The MDS – 16 has also shown to be able to identify those who self-identified as having MD and not having MD. The MDS-16 for this study was recreated in Psychopy3. Questions like *Some people feel a need to continue a daydream that was interrupted by a real-world event at a later point. When a real-world event has interrupted one of your daydreams, how strong was your need or urge to return to that daydream as soon as possible?* Were asked to assess the individual's daydreaming behavior. For this study, due to limitations of software, the MDS-16 was adapted to be from 0-10 and participants had to type in which number fit the best.

Immediate and Delayed Memory Tasks

The immediate and delayed memory task (Dougherty et al., 2002) uses alternating blocks between IMT and DMT. The IMT has two numbers that are the same, two numbers that are similar with one digit changed, and one other random number (e.g., 12399, 39384, 39385, 98483, 98483), the placement of pairs are randomized. The DMT shows a number in the beginning, has filler trials in the middle (always 12345), then shows first number again (e.g., 45892, 12345, 12345, 12345, 45892). This task was recreated in Psychopy3 (Pierce et al., 2020) but modified from the original version. For this study, there were two blocks with an IMT and DMT each. The blocks were 10 minutes long. As far as to this researcher's knowledge, a shortened version of the tasks would have one block of IMT and DMT lasting 20 minutes. Using a random number generator (*RANDOM.ORG - Integer Generator*, n.d.) and enabling a persistent identifier, roughly 3000 five-digit numbers were produced. The seed *IMTDMTMDS16V1* can be used to generate the same numbers if future replication of this experiment is desired.

Rstudio

Rstudio was used to analyse the data. R is a free analysis software that is opensource and provides plentiful packages to use for just about any kind of analysis. With R I analysed the data with Cronbach's alpha and conducted correlation and regression tests.

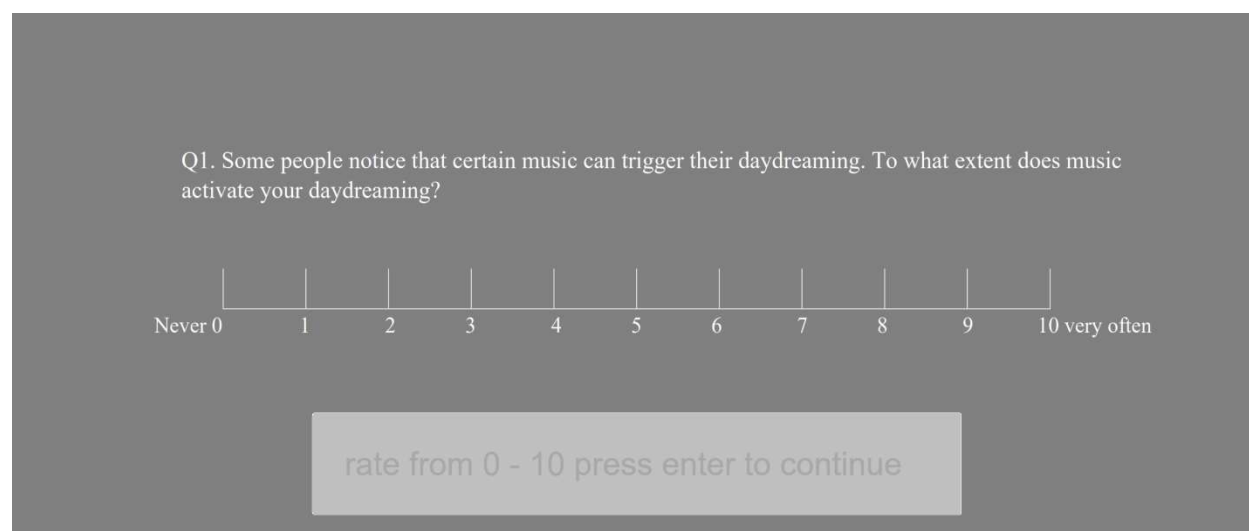
Procedure

The participants clicked on the link that redirected them to the study hosted on Pavlovia (*Pavlovia*, n.d.). The participants were presented with a screen that asked them to enter in a unique anonymous ID (1 participant did not enter in an ID and were assigned an ID as *unknown*). Once the ID was entered, participants were given instructions and an overview of the study. When they agreed to take the experiment, first they were asked basic demographics such as

ethnicity, gender, and age. A text box at the top of the demographics page instructed the participants to enter in their demographic information and once they were done, to press enter to continue to the MDS.

When participants pressed enter, they entered the MDS where they were presented with a scale between 0 – 10 (0 represented 0 points, 1 – 1 point 2 – 2 points, etc.) and the scale question. Due to the limitations of the software, an image with the question and scale was presented and the participant was required to enter in the number that fit best (see Figure 1). The participant was warned that they could not go back once they entered in a number so they had to be sure to read the instructions and enter in as best as they could. When the participant was finished with the MDS, they were greeted with a thank you page and an overview for the next portion. The software counts correct answers as 1s and wrong answers as 0s. If the participant presses *space* on the wrong number, it is counted as 0 (incorrect), missing the target number (the number that participant needs to respond to) is also counted as incorrect. Numbers that the participant does not react to is counted as a correct response and shown as a 1, it is only when the participant reacts to the wrong number that it is counted as wrong (0). The correct and incorrect responses in the files show a high amount of correct and a low number of incorrect, but this is, again, since not responding to the wrong number is counted as the correct response.

Figure 1



Q1. Some people notice that certain music can trigger their daydreaming. To what extent does music activate your daydreaming?

Never 0 1 2 3 4 5 6 7 8 9 10 very often

rate from 0 - 10 press enter to continue

Results

The results are represented in Table 1. A mistake in one set of the DMT numbers was made, instead of 31113 12345 12345 12345 31113, the numbers were 31113 96833 97892 87516 31113. Unfortunately, due to inadequate number of participants, no comparisons could be made between a non-MD group and an MD group. With a small number of participants and all 14 participants scoring above the 50-point mark ($M = 108.79$, $SD = 24.94$), no conclusion could be made about maladaptive daydream's impact on impulsivity. Cronbach's reliability estimates for the MDS-16 scale were 0.89.

Table 1

Means and Standard Deviations for The MD group

Variables	M	SD
Age	21.64	3.15
Correct IMT	218.71	60.31
Correct DMT	226.62	65.29
Incorrect IMT	38.43	15.96
Incorrect DMT	38.77	42.93
IMT RT	0.38s	0.03
DMT RT	0.38s	0.14
IMT/DMT RT	0.43s	0.13
IMT Space Presses	31.43	11.37
DMT Space Presses	38.38	37.10

Total Space Presses	68.7	36.8
MDS-16 average	108.8	24.94
Average correct IMT RT	.4s	0.23
Average incorrect IMT RT	0.36s	0.061
Average correct DMT RT	0.36s	0.069
Average incorrect DMT RT	0.31s	0.064

Note. RT stands for response time

When comparing correct IMT and DMT scores, a statistically significant correlation was found $r(11) = 0.83, p < 0.001$ represented in Figure 2. Comparing incorrect and correct DMT scores also showed a correlation $r(22) = 0.56, p = .043$ and regression ($\beta = 0.21, t(11) = 2.29, p = .043$) ($R^2 = 0.26, F(1, 11) = 5.25, p = 0.043$) represented in Figure 3.

Discussion

The results from this experiment, unfortunately, do not show a clear picture whatsoever. Due to the small sample size and the lack of variability among participants (every participant scored above a 50 on the MDS-16), no comparison could be made. My hypothesis that those with higher MDS-16 scores will have more incorrect responses and more *space* responses, could not be tested fully. Out of the 157 participants who started the experiment, only 13 finished the entire experiment and one participant completing one block. It is not known if the instructions were unclear, major technology problems hindered participants, the task was too long, or other variables contributed to the lack of participants finishing the study; however, I am certain that replication of this experiment with certain changes mentioned in the discussion section, will yield better results.

As of writing this paper, it has been a year since COVID-19 first emerged, since March we have been on and off on lockdowns resulting in an unprecedented number of individuals not leaving their homes. Looking into how isolation during COVID-19 lock downs and a lack of social interaction can lead to increased impulsivity, I believe would be a good future research project to pursue. This is assuming that being able to daydream anytime one would like, could decrease their ability to control their impulsive need to daydream.

One factor to also study would be to see how those with MD and/or high daydreaming/mind wandering habits perform if they know how the IMT/DMT is structured a few days before hand (not practicing but learning about the task). Gilbert and Wilson (2007) found that those who mind wandered about the future, were able to solve problems easier when and/or if that problem were to arise, daydreaming to train oneself to respond only when the correct stimulus occurs would be an interesting variable to study for sure.

Although sleep is not thought of often as it should be, it plays a major part in how an individual acts in their day to day lives. Ottaviani and Couyoumdjian (2013) used ECG to track participants and how their lives are impacted by mind wandering. They found that those who mind wandered more, had trouble sleeping and increased heart rate. If sleep quality is something that lacks in those with MD, then there is a chance that they might experience more stress in their everyday life. Bigelsen and Schupak (2011) found that many of the participants with MD they studied, experienced high amounts of distress and could not control their need to fantasize. It is possible that a lack of sleep quality could influence the behaviors of those with MD, even in their impulsivity. There might be some worth in the future in seeing if stress, sleep, and mood can change the way someone with MD and/or high daydreaming/mind wandering habits score on impulsivity tasks.

Related to the study conducted by Baird et al. (2012) we see a similar situation with Levinson et al. (2012) study. Levinson et al. (2012) found that tasks that do not require much effort or are relatively easy to the participant, increases mind wandering. The difference though is that in this study, working memory capacity was positively correlated with those who had higher working memory capacities. This interesting finding, I believe, needs to be investigated further with those with MD. Due to the higher amounts of ADHD and OCD found among those with MD, one would think that working memory capacity would be negatively affected, this could serve as more evidence that ADHD and OCD diagnoses could be just a small part of the picture for those with MD and could impact impulsiveness.

Recently immersive daydreaming has become more popular among the maladaptive daydreaming community. Immersive daydreaming shows to have none of the negative effects of MD; however, they both lack emotional coping abilities. Screening and separating immersive and maladaptive daydreamers in studies might prove useful in understand how stresses can affect immersive and maladaptive daydreamers, with specific attention on immersive daydreamers. If future results do show higher impulsivity rates among those with MD, then testing impulsivity in immersive daydreamers would also be the next logical step. Making sure to include a “how stressed are you” question could provide additional data to see how stress can impact impulsive traits.

Working with Psychopy and the IMT/DMT

Due to COVID-19 having individuals come to a lab to join the study in person was not possible, thankfully Psychopy allowed me to recreate the IMT/DMT and distribute the study remotely. Along with the niche population of maladaptive daydreamers, the study was most likely going to have to go online regardless. Psychopy offers the modules required to recreate a

task like the IMT/DMT; however, at many times things would just not work how I needed them to. Instead of having a proper slider scale, I had to recreate the scale using the table function on Word, take a screenshot, and integrate that into Psychopy. The textbox option was not recording responses which lead me to adding additional code to the Java modules. Many times, the program would run flawlessly on my PC, but when piloting the study online, formatting and answer inputs would be broken.

There were many times in which a strange quirk was leading to a malfunction and crashes, which lead to an incredibly long amounts of trial-and-error testing. Furthermore, the data files that were saved online were all in the .csv file, an outdated excel format, which required for me to convert each .csv file to .xlsx so that Rstudio could properly read the files. Despite these issues, I was able to gather data, but in the future, I highly recommend finding a way to conduct impulsivity tasks without psychopy as currently, in its experiment state, it can be too difficult to use and unpredictable.

The IMT/DMT was used due to familiarity from previous research. It showed to have good validity and a sound method of measuring impulsivity; however, understanding the task took quite some time. In general, I believe that the task was too long to give to individuals who could have high impulsivity; however, the people who did finish the entire study were primarily those who scored above 50 on the MDS-16. Recreating the IMT/DMT in Psychopy, I believe, could have possibly resulted in less reliable data. The output for the files counted each number that the participant did not respond to as correct and ones incorrectly responded to as incorrect (1 and 0 respectively, see Figure 4). In many instances, participants would finish one IMT set, but on the DMT set would respond three or four times leaving the rest unanswered.

The official software can properly count responses and non-responses, but for my case, I simply counted the incorrect and correct responses as the data showed. I also veered away from the official software by including breaks between each set and block, and letting the participants begin when they were ready. The official IMT/DMT software, from my understanding, has a shortened version where there are two blocks where the first block is IMT for ten minutes and the second, DMT for ten minutes. My study had the IMT and DMT in one block for 10 minutes with a total of two blocks. I cannot be sure that my version could have inaccurate or wrong outcomes, but if one is able, I would suggest using the official version over remaking it in Psychopy (unless one has a good understanding of the program).

Conclusion

In conclusion, I would say that my study had a good base, but the lack of subjects and no comparison groups resulted in an incomplete study. I feel as if though that the IMT/DMT was possibly not a good choice for testing impulsivity, especially in the situation the world is in currently. I believe that using another impulsivity task such as the Go/no-go test, The Stroop Color and Word Test, or the Wisconsin Card Sorting Test could result in more participants finishing the task and better results. I think that the IMT/DMT is a good task to use, especially if one were to study how a prolonged, demanding task can increase daydreaming and impulsivity, but until the COVID-19 situation improves, I highly suggest using a separate task like mentioned previously and to use Psychopy only if time is not a factor and one is proficient in computer knowledge.

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Figure 2**Figure 2**

Relationship Between Correct IMT and Correct DMT Responses

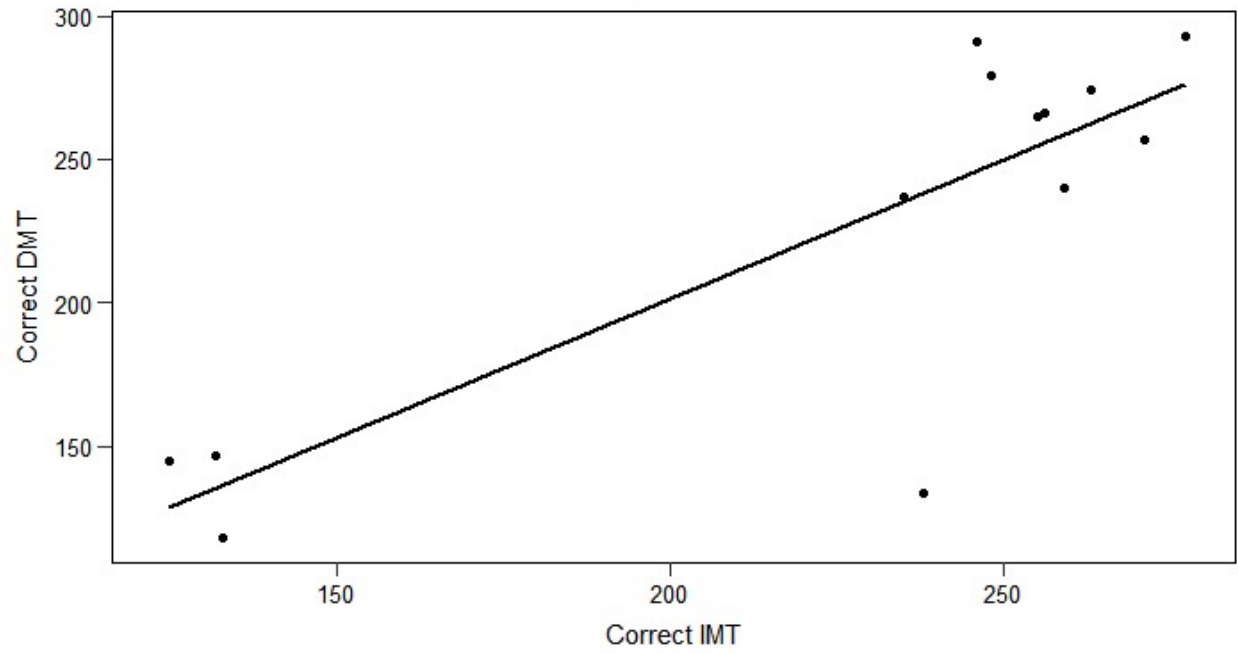
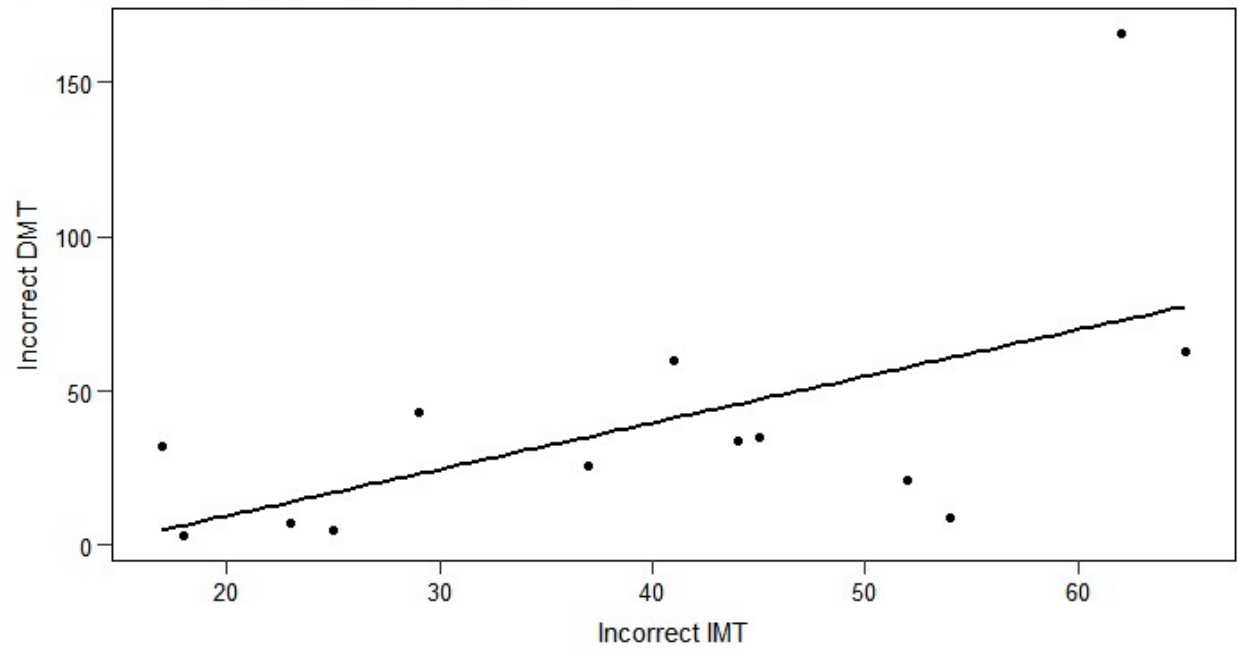


Figure 3**Figure 3**

Relationship between Incorrect IMT and DMT scores

**Figure 4**

	A	B	C	D	E	F	G	H	I	J	K	L	M	N
1	IMT1 responses	IMT1 cor/inc	trial type	digits	correct answer	IMT1 RT		IMT2 responses	IMT2 cor/inc	Trial Type	digits	Correct answer	IMT2 RT	
2			1 IMT	32002	None					1 IMT	69371	None		
3	space	1 IMT		32002	space	0.383				1 IMT	79371	None		
4	space	0 IMT		12189	None	0.246				1 IMT	79179	None		
5			1 IMT	73012	None					1 IMT	99661	None		
6			1 IMT	74012	None		space			1 IMT	99661	space	0.439	
7			1 IMT	94075	None					1 IMT	88232	None		
8			1 IMT	94076	None					0 IMT	88232	space		
9			1 IMT	37860	None					1 IMT	81602	None		
10			1 IMT	65103	None					1 IMT	82602	None		
11	space		1 IMT	65103	space	0.417				1 IMT	82410	None		
12			1 IMT	24653	None					1 IMT	86040	None		
13			1 IMT	56878	None					1 IMT	70378	None		
14	space		0 IMT	57878	None	0.331				1 IMT	70278	None		
15			1 IMT	57029	None					1 IMT	86330	None		
16			0 IMT	57029	space					0 IMT	86330	space		
17			1 IMT	91248	None					1 IMT	90128	None		
18			1 IMT	79969	None					1 IMT	90118	None		
19			1 IMT	78969	None					1 IMT	28038	None		
20			1 IMT	81356	None		space			1 IMT	28038	space	0.416	
21	space		1 IMT	81356	space	0.394				1 IMT	64985	None		
22			1 IMT	13504	None					1 IMT	40940	None		
23			1 IMT	14504	None					1 IMT	84757	None		
24			1 IMT	52282	None					1 IMT	84767	None		
25			1 IMT	76297	None					1 IMT	94521	None		
26	space		1 IMT	76297	space	0.411				0 IMT	94521	space		
27			1 IMT	76849	None					1 IMT	96282	None		
28			1 IMT	78849	None		space			0 IMT	96284	None	0.358	
29			1 IMT	31533	None					1 IMT	84305	None		
30	space		1 IMT	31533	space	0.385	space			1 IMT	84305	space	0.4	
31			1 IMT	77113	None					1 IMT	86075	None		
32			1 IMT	65458	None					1 IMT	50691	None		
33	space		1 IMT	65458	space	0.425				1 IMT	77271	None		
34			1 IMT	43600	None		space			1 IMT	77271	space	0.412	
35			1 IMT	44600	None					1 IMT	30641	None		
36			1 IMT	12592	None					1 IMT	40641	None		
37			1 IMT	25968	None					1 IMT	96858	None		
38			1 IMT	64653	None					1 IMT	23277	None		
39			1 IMT	64643	None		space			1 IMT	23277	space	0.443	
40			1 IMT	16915	None					1 IMT	61392	None		
41	space		1 IMT	16915	space	0.407				1 IMT	65392	None		
42			1 IMT	77786	None					1 IMT	46983	None		
43			1 IMT	60843	None					0 IMT	46983	space		
44			1 IMT	60842	None					1 IMT	79680	None		
45			1 IMT	64534	None					1 IMT	63902	None		
46			0 IMT	64534	space					1 IMT	63102	None		
47			1 IMT	40363	None					1 IMT	39772	None		
48	space		1 IMT	40363	space	0.422				1 IMT	53676	None		
49			1 IMT	20511	None		space			1 IMT	53676	space	0.41	
50	space		0 IMT	20512	None	0.401				1 IMT	11934	None		
51			1 IMT	99477	None					1 IMT	11994	None		
52			1 IMT	61064	None					1 IMT	68125	None		
53			1 IMT	87299	None					1 IMT	68825	None		
54			1 IMT	88299	None					1 IMT	86301	None		
55			1 IMT	99602	None					1 IMT	83707	None		
56	space		1 IMT	99602	space	0.412	space			1 IMT	83707	space	0.343	