

Exploring the modulation of information processing by task context

Dissertation

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## **Abstract**

Tasks in everyday life are not completed in isolation. We each uniquely maneuver in an environment rich with information that undoubtedly influences our behaviors. For example, searching for your keys in the kitchen does not happen in the absence of drawers, counter tops, plates on the table, a stack of mail etc. Rather this contextual information can influence your search. This dissertation is focused on exploring how the contexts we are exposed to during a task can affect how information is processed, and eventually behavioral outcomes. Two specific types of context will be explored: spatial and Gestalt grouping cues. Additionally, due to individual differences in task context utilization, I sought to explore a method that could be used to study brain-behavior relationships.

The first study examines how context may not be learned when faced with increased task demands. When exposed to the same spatial layout of a target and distractors on a computer screen multiple times, participants become faster at finding the target when searching through repeated displays, i.e. the contextual cueing effect. However, when a secondary task had to be completed immediately after the search task, subjects did not always exhibit the expected search facilitation for repeated displays. It is speculated that the attenuation of cueing due to the secondary task results from

attentional resources being redirected during the critical consolidation period after the search concludes. Thus, a spatial context was not always able to influence performance.

The second study examines how individuals can overcome visual working memory capacity limitations through the use of an illusory grouping context. Illusory objects like the Kanizsa triangle, have been shown to produce benefits to visual working memory performance, possibly by allowing the inducers forming the object to be perceived as an individual unit rather than separate distractors, but it was unknown exactly how the triangle led to behavioral improvements. Through an EEG study utilizing the contralateral delay activity to measure the number of items held in visual working memory, it was found that while the illusory triangle improved behavioral performance on a change detection task, the triangle did not lead to a reduction in CDA amplitude. However, it is speculated that a reduced CDA amplitude may have arisen if more time was provided to attentionally select the triangle, and develop an efficient visual working memory encoding strategy.

Finally, due to individual differences in cognitive processes related to context processing like working memory and attention, I sought to explore the utility of a method to explore brain-behavior relationships. Connectome based predictive modeling (CPM) has been shown to be successful at predicting individual differences in behavior from whole brain functional connectivity. However, just how successful this method was for a range of phenotypic measures and what factors could influence that success was unknown. I found that CPM was overall 18% successful at producing predictive models, but this number varied widely depending on the type of imaging data used, the type of

measure being predicted, and the sample size used to construct the model. For example, doing a task in the scanner produced better model predictions than resting state only scans. In addition, a higher sample size led to better predictions, but more scan data did not. By examining models that predicted measures related to context processing like attention, long-term and working memory, and inhibitory control, I was able to gain insight into context processing and the possible underlying cognitive and anatomical features. In the end, I hope the results of this chapter can aid others in construction of their own CPMs.

Overall, this dissertation explores how context can modulate the processing of information, factors that can impact this modulation, and investigates a neuroimaging method for assessing individual differences.

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## Table of Contents

Abstract.....	i
Acknowledgments .....	iv
List of Tables .....	viii
List of Figures.....	ix
Chapter 1. Introduction.....	1
Chapter 2. How is the consolidation of spatial contextual information influenced by an interfering task? .....	8
Introduction .....	9
General Methods .....	19
Experiment 1: T among L search secondary task during consolidation.....	30
Experiment 2a: Spatial symmetry discrimination secondary task during consolidation .....	38
Experiment 2b: Non-spatial color discrimination secondary task during consolidation .....	44
Experiment 3a: Spatial symmetry discrimination secondary task during consolidation .....	49
Experiment 3b: Non-spatial color symmetry discrimination secondary task during consolidation.....	57
Across experiment analysis .....	64
Discussion.....	67
Chapter 3. How does the context of illusory objects improve visual working memory performance? .....	77
Introduction .....	78
Methods .....	88



Results .....	94
Discussion.....	101
Chapter 4. How successful is connectome-based predictive modeling for studying individual differences? .....	107
Introduction .....	108
Methods .....	114
Results .....	122
Discussion.....	134
Chapter 5. General Discussion and Conclusions.....	142
Bibliography .....	149
Appendix A. Human Connectome Project phenotypic measures .....	170
Appendix B. Complete CPM results .....	175

## List of Tables

Table 3:1: Detailed accuracy and response time averages and standard deviations. ....	96
Table 3:2. Correlations between K and accuracy & response time.....	98
Table 3:3. Correlations between K and CDA amplitude.....	100
Table 4:1. Scanning and condition information. ....	120

## List of Figures

Figure 2:1. Trial sequence overview. ....	23
Figure 2:2. Secondary task displays. ....	25
Figure 2:3. Experiment 1 response times and error rates. ....	34
Figure 2:4. Experiments 2a & 2b response times and error rates. ....	40
Figure 2:5. Experiments 3a & 3b response times and error rates. ....	54
Figure 2:6. Meta-analysis of all experiments ....	66
Figure 3:1. Kanizsa triangle. ....	81
Figure 3:2. Contralateral delay activity waveform. ....	83
Figure 3:3. Color change detection task overview. ....	89
Figure 3:4. Experimental trial overview. ....	92
Figure 3:5. Accuracy across conditions. ....	95
Figure 3:6. Response time across conditions ....	95
Figure 3:7. Scatter plots of VWM capacity (K) correlated with accuracy by condition. ..	97
Figure 3:8. Scatter plots of VWM capacity (K) correlated with response time by condition. ....	97
Figure 3:9. Contralateral delay activity results. ....	99
Figure 4:1. Percentage of successful models across scan conditions. ....	124
Figure 4:2. Percentage of successful models built using aggregated scan condition data. .....	126
Figure 4:3. Sample size comparison. ....	128
Figure 4:4. Evaluation of model predictions for BMI and fear recognition. ....	129
Figure 4:5. Comparison of models predicting measures related to context processing. .	133

## Chapter 1. Introduction

Searching for a drink at the grocery store may seem like a mundane and easy task, but it really involves a complex interplay of various internal and external factors. One such external factor is task context. Context refers to the global environment or circumstances surrounding an event (Biederman, 1972). Thus, the task of searching for a drink at the store does not occur in isolation. There is an entire context composed of elements like the spatial locations of other drinks, the colors of containers, the emotions one is experiencing, and even notifications being received on a phone. This rich environment can influence how someone carries out their search task. Maybe they get distracted by a new item or a phone call which hinders their progress. Or maybe the way the shelf is organized helps them remember the drink location, or allows them to approach their task in a more refined way. Studying how task context can influence the ways in which people complete a task is an important endeavor. People must live their lives while encountering a variety of environments, some of which may be optimal for completing a task and some which may be suboptimal. Thus, understanding how people navigate these environments and discovering ways in which we can improve that navigation can be extremely beneficial. While there are various components of a context that can be investigated, this dissertation focuses on how visual components in an environment can modulate task performance.

It is difficult to investigate the nuanced factors and underlying mechanisms involved in task context modulation in a controlled way outside of a lab. In the lab, context can be studied in a more controlled fashion. Context in many lab-based paradigms can be thought of as the environment in which a target is presented (Biederman, 1972, Chun & Jiang, 1998). In general terms, a “target” could be a specific item or letter one must attend to, or search for on a computer screen. The “setting” could be composed of other items on the screen and the way in which they are arranged. Such lab-based studies have investigated topics such as the impact of sentence context on word recognition (Tulving & Gold, 1963; Fischler & Bloom, 1979) and contextual effects on face recognition (Sinha & Poggio, 1996; de Gelder et al., 2006). The contextual components contained in an environment can affect how someone approaches their task through interactions with various cognitive systems and processes. It is these interactions that are one of the focal points in the presented studies.

This dissertation contains three chapters which aim to explore various aspects of how context can influence information processing. The second chapter investigates whether an interfering task can influence the learning of visual spatial context using the contextual cueing paradigm (Chun & Jiang, 1998). The contextual cueing effect results when repeated spatial regularities in the environment help cue an individual to find a target faster. I sought to determine if this cueing effect could be affected by requiring subjects to complete another task immediately after they found their target.

The third chapter focuses on Gestalt grouping contexts and their effect on visual working memory. Visual working memory is a capacity limited workspace that holds

objects in an active online state (Baddeley & Hitch, 1974, Luck & Vogel, 1997) and plays an important role in daily life due to being associated with measures such as fluid intelligence and problem solving (Cowan et al., 2005; Cowan et al., 2006; Fukuda et al., 2010; Johnson et al., 2013; Ackerman et al., 2002; Engle et al., 1999; Kyllonen & Christal, 1990; Unsworth et al., 2014). Gestalt grouping refers to the concept that some items are able to “go together” when perceived due to cues such as similarity or proximity (Wagemans, et al, 2012). This portion of the dissertation investigated the way in which the Gestalt grouping context of illusory objects influenced how items are stored in visual working memory.

The results of these first two chapters will be interpreted primarily in terms of attention, working memory, and long-term memory. Attention is a limited resource needed for information processing (Wickens, 1980), and can itself be viewed as a process that allows for the prioritization and selection of specific information (Chun et al., 2011; Desimone & Deuncan, 1995). Attention is intimately intertwined with other cognitive processes and resources like working and long-term memory (Oberauer, 2019; Aly & Turk-Browne, 2017). Thus, it is important to consider how attention and memory interact to affect the way in which context modulates performance.

However, not all people complete a task in the same way. There can be a variety of outcomes among individuals even though they are exposed to the exact same task environment (Irons & Leber, 2016, 2018; Sackett et al., 2017). Such differences are termed individual differences. Individual differences can arise for various reasons. One person might have a different strategy and way to approach a task (Cooper & Regan,

1982; Schunn & Reder, 2001; Sternberg & Grigorenko, 1997, Irons & Leber, 2018, 2020). There can also be ability differences between individuals. For instance, one person might have a higher working memory capacity than another (Vogel et al., 2005), a better long-term memory than another (Unsworth, 2019), or a higher general fluid intelligence (Kane & Engle, 2002). These ability differences could interact with each other and with cognitive processes resulting in different performance outcomes (Miller et al., 2019; Unsworth, 2010; Ackerman et al., 2002; Engle et al., 1999; Kyllonen & Christal, 1990). In addition, these individual differences could impact how a person reacts to a specific task context and how that context modulates their performance (Irons & Leber, 2016, 2018, 2020, Lee et al., 2012; Boot et al., 2014).

Individual differences are often studied with behavioral experiments. While such experiments provide a great deal of knowledge, they can sometimes make it difficult to draw conclusions about neural mechanisms underlying the differences. Instead, neuroimaging methods can provide a way to powerfully identify and explore individual differences. One such method is electroencephalography (EEG). EEG is utilized in chapter 3 to investigate the impact of a grouping context on visual working memory capacity. Using EEG, one can objectively track the number of items held in visual working memory (Vogel & Machizawa, 2004). This can allow for enhanced insight into individual differences in the neural architecture of visual working memory (Vogel et al., 2005).

Another method to study individual differences is utilizing functional magnetic resonance imaging (fMRI) to assess functional connectivity. Functional connectivity

refers to the temporal correlation of neural activity among spatially distinct brain regions (Friston, 1994). If activity among regions is correlated, this implies the regions are related to each other by being components of the same network, and or involved in similar functions. fMRI research has traditionally focused on group-level analysis of patterns of activity (Fox & Raichle, 2007) and networks such as the default mode network (Raichle, 2001). However, the variance in functional connectivity among individuals is informative (Dubois & Adolphs, 2016). Individuals display reliable whole-brain functional connectivity patterns that are unique from others (Cole et al., 2014; Finn et al., 2015, 2017; Noble et al., 2017). These unique patterns act as objective biomarkers that can identify one person from another and provide information about a variety of behaviors or traits (Arbabshirani et al., 2017) One such method for identifying these biomarkers is through connectome-based predictive modeling (CPM) (Shen et al., 2017). CPM uses whole-brain functional connectivity data and selects the most relevant connections to use in model building. This method has been shown to be successful and accurate in predicting a wide range of behaviors and traits related to attention (Rosenberg et al., 2016), neuroticism and extraversion (Hsu et al., 2018), anxiety (Wang et al., 2020), fluid intelligence (Greene et al., 2018), and postpartum anxiety (Rutherford et al., 2020).

It is important to have accurate and successful methods with which to study individual differences in the use of task context, and the underlying neural substrates influencing those differences. While CPM offers a practical method to assess individual differences in brain-behavior relationships and appears to have great success in the literature, the actual success rate of CPM is unknown for a large number of phenotype



measures. To assess a wider range of behavioral and trait metrics, I utilize the Human Connectome Project's (Van Essen et al., 2013) large dataset. Thus, the fourth chapter of this dissertation will exhaustively evaluate the overall success of CPM at identifying a variety of brain-behavior relationships. This large data set allowed me to explore not only how good CPMs are at identifying brain-behavior relationships, but also to explore how factors such as the type of imaging data used for model building, sample size, and scan length can affect the model. These are important factors to consider given the significant cost and time investment required to conduct an fMRI study.

The fourth chapter was not originally planned to focus on investigating the success of CPM. The initial plan was to directly study individual differences in context processing using CPM by collecting resting state data in the lab. Individual subject's resting state functional connectomes were going to be used to predict their attentional control strategy in response to an adaptive task context (Irons & Leber, 2016, 2018). The experiment was started in early 2020 and 18 subjects were scanned. Ideally, this project would have been able to reach completion, but due to the COVID-19 pandemic I was unable to finish collecting data. However, a positive outcome of these unfortunate circumstances was that I was able to discover my original plan may not have been the best. The CPMs I produced using my initial set of data were not successful, which made me curious to investigate the performance of CPMs. These events led me to investigate CPM performance in chapter 4.

Lastly, since I still am interested in exploring how CPM can assist in understanding task context, in chapter 4 I additionally use the HCP CPM analyses to

provide some insight into the modulation of performance by task context. Ideally, I would have been able to do this directly through the originally planned in lab experiment. Instead, I am using the HCP data to take a preliminary step towards this goal. The HCP dataset does not include any task specifically assessing the influence of task context in the same way I have been studying it. However, by predicting individual differences in cognitive metrics that are linked to context processing, such as attention, memory, and executive functioning, I may be able to gain insight into my original question. These insights can help further my understanding of context processing and provide suggestions for a successful future experiment.

Altogether, this dissertation will explore the way in which context can influence task performance, factors that can affect this modulation, and a method by which individual differences in context modulation can be studied. While the presented chapters are studying different concepts, they each involve task context, which highlights the way our rich contextual environment can influence us in many ways.

**Chapter 2. How is the consolidation of spatial contextual information influenced by an interfering task?**

## Introduction

Searching for things is something people do every single day, but this search is often not random. Real-world targets are often embedded within structured and repetitive environments, such as a fork found in a kitchen scene. These structured environments provide rich contextual information that can be learned and exploited to improve the efficiency and speed of visual search (Brockmole et al., 2006). Such search facilitation due to exposure to repeated regularities in the environment is a form of statistical learning termed the contextual cueing effect (Chun & Jiang, 1998). Despite numerous studies on contextual cueing, a key question remains incompletely answered: How and when does our information processing system learn regularities in the environment? Many studies have investigated facets of this question, however the “when” portion has remained an understudied area with few papers highlighting how the within trial time course of events can impact the acquisition and expression of learned information. This chapter investigates the time course of contextual learning with a focus on how the acquired information is consolidated. I first seek to understand if consolidation of contextual information can be disrupted by a secondary task, resulting in a lack of search facilitation. Next, I further investigate possible components of the disruption that could lead to successful or unsuccessful consolidation. I then conclude with a discussion on the importance of considering the interplay between attention, memory, and task demands on the learning time course when conducting contextual cueing experiments.

The classic way search facilitation in response to repeatedly experienced spatial contexts has been studied in the laboratory setting is through the contextual cueing

paradigm (Chun & Jiang, 1998). In this paradigm, subjects are tasked with finding a target letter T among distractor letter Ls. Once subjects find the target, they make a response indicating the orientation of the T. Unbeknownst to subjects, search arrays in which the target is always presented within a consistent spatial distractor context, are repeatedly shown throughout the experiment (“repeated”). Other search displays that lack the consistent association between target and distractor are only shown to subjects once (“random”). Unlike the random arrays, the repeated context arrays allow the location of the T to become associated with the spatial arrangement of distractors in the display, providing predictive information about the target location. After as few as 5 exposures to repeated displays (Tseng & Lleras, 2013), subjects are faster at finding the target in the repeated displays than the random displays, producing the search facilitation known as the contextual cueing effect. The effect generally is thought to result from long-term memory traces of associations between target location and distractors being formed after repeated exposure to predictive displays. Upon re-exposure to a repeated display the long-term memory trace modulates attentional guidance (Jiang & Wagner, 2004; Olson & Chun, 2002; Brady & Chun, 2006; Johnson et al., 2007; Chaumon et al., 2008; Schankin & Schubo, 2009) although faster responding may also play a role (Kunar et al., 2007, Schankin & Schubo, 2009). The learned contextual information continues to persist up to one week (Chun & Jiang, 2003) further indicating a role of LTM. The hippocampus, while usually known for its involvement in long-term declarative memory encoding (Squire, 1992), has been shown to be involved in spatial and contextual learning (Cohen & Eichenbaum, 1993; Hirsh, 1974; O’Keefe & Nadel, 1978). Additionally, amnesic

patients with hippocampal and medial temporal lobe damage were found to not display a contextual cueing effect (Chun & Phelps, 1999) and the finding that the hippocampus is sensitive to repeated versus novel contexts (Greene et al., 2007) implicates the medial temporal lobe structures in the effect. The effect has also been found to occur implicitly due to subjects being unaware of repeated displays and being unable to identify repeated displays above chance levels (Chun & Jiang, 2003), although see (Smyth & Shanks, 2008; Vadillo et al., 2016).

Since Chun and Jiang's 1998 study, a great deal of research has taken place investigating the cognitive and neural mechanisms underlying learning in contextual cueing paradigms. Some main areas of research include examining global vs local encoding of context (Olson & Chun, 2002, Brady & Chun, 2007), whether cueing guides search before the target is found vs facilitating a response after the target is found (Kunar et al., 2007), and the role of attention in learning. Neuroimaging studies with patient populations have found a role of the medial temporal lobe structures, but specific details regarding the effect are not fully conclusive (Greene et al., 2007; Preston & Gabrieli, 2008; Manelis & Reder, 2012). Despite these studies there is still much debate and research to be done to uncover how contextual cueing arises.

Another way to assess learning in contextual cueing is to study how it is affected by an interfering event. Learning in the real world often takes place amid distraction and shifts in attention, thus understanding how the development of the contextual cueing effect is affected by a disruption to the learning process can provide new insights into the mechanisms of learning itself. One such form of interference involves adding an

additional task (a secondary task) to the trial that must be completed by the subject. This field of research has investigated how concurrent secondary tasks impact search facilitation. Studies by Vickery et al. (2010), Manginelli et al. (2012, 2013), (see Pollman, 2019 for a review) assessed how a visual working memory (WM) load held concurrently during visual search impacts cueing. Given that configuration learning was found to be independent of attention (Jiang & Leung, 2005) and the magnitude of the contextual cueing effect does not scale with attentional dwell time on the distractors (Rausei et al., 2007) the question remained whether divided attention and resources impacted cueing. It is possible that completing a secondary working memory task while performing the visual search task can tax common resources used for both tasks (Kahneman, 1973), deplete central working memory resources needed to coordinate dual task execution (Pashler, 1994), or interfere with cueing development if long-term memory depends on working memory (Cowan, 1999). The role of WM was unknown in contextual cueing especially since the role of WM in implicit learning is less known in general (Reber, 2013).

In these studies, subjects performed variants of visual delayed matching working memory tasks with the visual search being completed during the delay; resulting in subjects having a concurrent working memory load during the search. The general conclusion from the Vickery et al. (2010) study was that both a spatial and non-spatial working memory load had zero impact on the cueing effect. However, this study assessed cueing only under a single task phase after learning of the configurations had already presumably occurred during the dual task phase of the experiment. Thus, while learning

of the configural information did not appear to be affected, it was unclear if the secondary WM task additionally had an impact on the expression or retrieval of the learned information. This point was important due to the results of Jiang & Leung (2005). It had been found that it is necessary to consider the expression of learning (i.e. the contextual cueing effect) separately from the learning of the configural information itself (Jiang & Leung, 2005). Manginelli et al. (2012, 2013) attempted to address this concern by having both training and test phases during which the working memory load could be present. When the secondary working memory task was present during the training phase, there was an attenuation of cueing. Once the WM load was removed during the test phase, search facilitation during test occurred, replicating the results of Vickery et al. (2010). However, when the training phase had no WM load, and the test phase did, there was an attenuation of cueing at test. These results appeared to confirm that working memory was required for the expression of learning to take place rather than for learning itself to occur.

In addition to the findings on learning versus expression of learning, it appears that the nature of the WM secondary task matters. Manginelli et al. (2013) investigated how featural (non-spatial) and spatial WM secondary tasks affected cueing. Their studies demonstrated that only a spatial WM load (dot locations and rotation of gratings) could lead to a reduction in search facilitation; non-spatial WM loads (colors and forms) did not. Similar results were also seen in Vickery et al., 2010, Manginelli et al., 2012, Travis et al., 2013, and Wang et al., 2021.



Altogether, the results thus far suggest that the visual search and WM tasks both require spatial WM resources. When the search and WM task occur concurrently, they compete for these resources, prevent the configural information held in long term memory from being connected with the search display, and result in an attenuation of search facilitation. The results additionally conclude that the attenuated cueing effect is only the result of a failure to express the learned configural information, not a failure to learn it in the first place.

Due to the necessity of executive WM functions in visual search (Han and Kim 2004), the attenuation of contextual cueing due to a concurrent visuospatial WM task could be more due to the executive demands required to perform two tasks rather than competition for spatial WM resources. This hypothesis was investigated by Annac et al., (2013) in a series of experiments in which they altered when the secondary task occurred in relation to the visual search. The visuospatial WM task took place before, during, and after the visual search. If task coordination and not spatial WM resources was the reason search facilitation was diminished in the previous studies, they posited that only when the WM task was before or after visual search would contextual cueing be attenuated. Their results replicated the prior findings of the expression of cueing being diminished by a concurrent secondary task. There was no impact of having the WM task before or after visual search on cueing. Thus, it was determined a secondary task before or after search did not interfere with the development of a contextual cueing effect, and task switching specific executive demands did not affect implicit learning. However, another study by Chen et al., 2019 conceptualized an executive WM demand as having to manipulate

information stored in WM (Baddeley, 1992). Their study had subjects complete a contextual cueing experiment with a concurrent secondary task that either required holding digits in WM or subtracting 3 from digits held in WM. They found that cueing was able to be attenuated in the subtraction condition, indicating that executive functions are indeed needed to demonstrate a cueing effect (Chen et al., 2019). They posit that executive WM resources assist with matching the currently viewed context with the learned configural associations stored in LTM.

The Annac et al. (2013) study was the only study to my knowledge to place a secondary task after visual search had concluded. While they considered the secondary task interfering with executive demand scheduling, they did not specifically consider the impact having a task during the inter-trial interval has on long-term memory formation itself. The inter-trial interval marks the time between separate trials during an experiment. In a contextual cueing experiment this can be classified as the time between a subject making their response after their visual search and the appearance of the next trial's search array. This period of time in contextual cueing studies has generally ranged from 500 to 2000ms. Often times these periods are filled with a blank screen or fixation cross, and allow for the subject to receive performance feedback and/or re-fixate on a central screen location. Based the lack of research in the literature, it appears that this inter-trial interval is not deemed important to the development of a contextual cueing effect.

The lack of interest in this time period is surprising given that, mechanistically the inter-trial interval appears to be a critical time for the stabilization of memory traces through consolidation. The moment the visual search array is displayed and perceived by

the subject, long-term representations become activated as a sensory memory trace (Cowan, 1995; Jonides et al., 2005; Lewis-Peacock & Postle, 2008; Ruchkin et al., 2003). The encoding process then begins and continues until a short-term memory trace is established (Massaro, 1975; Sperling, 1960; Turvey, 1973; Vogel et al., 2006; Woodman & Vogel, 2005, 2008). After encoding, a critical time exists for consolidation processes to stabilize the newly acquired information (McGaugh, 2000; Dudai, 2004). It is during this time that the acquired information can be vulnerable to interference from a secondary task that draws away attentional and other cognitive resources.

#### *Previous experiments*

This chapter does not represent my first attempt to study the effect of secondary tasks during consolidation. I previously completed several experiments in which I used a math based secondary task. Subjects were shown a simple 2-digit addition problem immediately after they found the target in the search task. The detailed methods and results of these experiments will not be discussed here, however they are available to view on Open Science Framework. While I had inconsistent results with these studies, I was able to find evidence suggesting that the learning of spatial regularities and the development of a contextual cueing effect could be disrupted by a secondary task during the consolidation period. I ultimately decided to move away from the math based secondary task due to inconsistent results, questions about difficulty of the math task, and concerns about different spatial and non-spatial strategies in math problem solving.

#### *The present study*

I was compelled to study the consolidation period in contextual cueing due to the lack of studies investigating it, the limited understanding of the process by which contextual learning occurs, and pilot data from the lab showing evidence that interfering with consolidation should affect cueing. To accomplish this, I utilized the experience I gained from pilot studies and the literature review to set up the methods. Each of the experiments I conducted utilized the same general methods. I chose to use a within-subjects design unlike the previous studies that employed secondary WM tasks (Manginelli et al., 2012, 2013; Travis et al., 2013; Annac et al., 2013) in order to minimize the variability in expressing cueing between subjects (Lleras & Von Muhlenen, 2004), and enhance statistical power. All experiments included 3 conditions; a repeated condition consisting of displays with fixed spatial configurations (repeated-standard), a random condition consisting of displays with no predictive configurations (random), and a repeated condition whose trials were always followed immediately by a secondary task (repeated-secondary). This secondary task consisted of a T among L search (experiment 1), a symmetry discrimination task (experiments 2a and 3a) and a color discrimination task (experiments 2b and 3b).

The previous mentioned studies have emphasized the distinction between the expression of configural learning and learning itself (Jiang & Leung, 2005; Manginelli et al., 2012, 2013; Travis et al., 2013; Annac et al., 2013). While it may initially seem that a secondary task after the visual search would primarily affect the learning of configural information, it is also possible the expression of learning could be affected, albeit in a different way than previously described. Due to the same repeated displays always being

followed by a secondary task, subjects may implicitly learn to delay their visual search response to create more time to prepare for the upcoming secondary task. This would result in response times being higher for the secondary task trials, not because of a lack of learning, but because of response delay. To account for this possibility and to further assess whether the secondary task is affecting learning, I included a training phase and a test phase in the experiments. The training phase included the secondary task after the repeated-secondary trials. The testing phase continued to show the repeated-secondary displays, but they were no longer followed by the secondary task. To further assess learning, during test on half of trials the target from repeated displays was either placed in the same location (consistent) or a different location (inconsistent) relative to where it was during the training phase. If subjects had indeed learned the spatial configurations during training, I should see search facilitation on the consistent trials, and no, or worse than random (Makovski & Jiang, 2010), search facilitation during inconsistent trials. Alternatively, if no learning took place during training, I should see similar response times for both the consistent and inconsistent trials. This testing phase could help disentangle the learning vs. expression of learning dilemma for the experiments.

Additionally, if an impact on cueing was found, I sought to determine if the nature of the secondary task played a role. Previous studies investigating the impact of a concurrent secondary task found that only a spatial based working memory task affected the contextual cueing effect; a non-spatial, non-working memory task did not (Manginelli et al., 2012, 2013, Travis et al., 2013). It is possible cueing during an easier visual search may only be impaired with a secondary task that specifically taxes spatial working

memory resources. However, a more difficult visual search may already be using a large amount of cognitive spatial resources, resulting in a non-spatial, non-working memory task also affecting cueing. To assess the necessity of a working memory load during the consolidation period, I opted to use secondary tasks not categorized as taxing working memory. I additionally tested two types of secondary tasks, a spatial symmetry discrimination, and a non-spatial color discrimination task to determine if a non-spatial task could also attenuate cueing.

In this study, I hoped to formally determine if and how secondary tasks immediately after the target is found can affect the ability to learn a predictive context. If I did find an attenuation of cueing, I would be providing the first evidence that the consolidation period is critically important for the formation of a long-term memory trace of configural information. Specifically, this would inform me when during a trial there are critical moments for consolidation and when consolidation can be vulnerable to external interference. Ultimately, I seek further insight into how the statistical learning that leads to the contextual cueing effect actually occurs.

## **General Methods**

### *Participants*

I used a predetermined sample size for each experiment (50 for experiments 1, 2a and 2b, and 50, 75, or 100 for experiments 3a and 3b). Subjects with low accuracy ( $>2.5$  standard deviations below the group mean) were removed and replaced. All subjects were recruited from either the undergraduate psychology research pool at The Ohio State

University, or from the surrounding university community. Participants received either psychology course credit or \$15 for participating in one 1.5-hour long session. All experimental methods were approved by The Ohio State University Institutional Review Board and all subjects provided informed written consent.

### *Apparatus*

Experiment was run in a dimly lit, sound-attenuated testing room on a Mac Mini computer and a 24 inch LCD monitor. Participants were seated approximately 63 cm from the screen (head position was not fixed). All stimuli were presented using Matlab (Mathworks, Natick, MA, USA) with Psychophysics Toolbox extensions (Brainard, 1997; Pelli, 1997; Kleiner et al., 2007).

### *Design*

There were three experimental conditions: random, repeated-standard, and repeated-secondary. The random condition consisted of 6 unpredictable displays. The repeated conditions each consisted of 6 predictive displays. The experiments were segmented into 3 phases completed in order: training, test, and explicit awareness. The training phase consisted of 25 blocks of 18 trials each. Each of the experimental conditions' displays were shown once during each block of the training phase for a total of 6 trials per block. The test phase consisted of 4 blocks of 24 trials each. Only the repeated-standard and repeated-secondary displays were shown with each condition display shown twice per block. The explicit awareness phase first asked subjects if they were aware of the repeating, predictive displays. Subjects were then shown the 12 repeated displays from training 4 times each, for a total of 48 trials. The displays had the

target T removed and replaced by an L and subjects were tasked with clicking on the L they thought was previously a T.

*Stimuli* (See figure 2.1)

### Search Task

Training phase: 12 items (1 T and 11 distractor Ls) each subtending  $0.84^\circ$  visual angle were displayed. The T was constructed from two perpendicular line segments of equal length where one segment bisects the other in the middle. Distractor Ls were constructed from two perpendicular line segments of equal length where one line bisected the other with an offset of  $0.19^\circ$  relative to a perfect L with an offset of  $0^\circ$  (Jiang & Sisk, 2019). The selected offset made search more difficult by having the Ls appear more similar to the T. I selected this offset after prior unpublished experiments suggested a more difficult search task could influence the results. The Ls were rotated randomly  $0^\circ$ ,  $90^\circ$ ,  $180^\circ$ , or  $270^\circ$  and the target T was rotated  $90^\circ$  clockwise or counterclockwise on an equal number of trials. The Ts and Ls were colored red (255, 0, 0), green (0,180, 0), blue (0, 100, 255), and yellow (200, 200, 0) for experiments 1, 2a, and 2b, and white (170, 170, 170) for experiments 3a and 3b. Stimuli were presented on a black (0, 0, 0) background.

The 12 items were placed randomly inside cells within an invisible 8 X 8 grid ( $34.35^\circ$  X  $18.10^\circ$ ) with some constraints. Items were placed slightly off center from the center of the cells (between  $-0.24^\circ$  and  $+0.24^\circ$ ) to prevent subjects from perceiving a square (Conci & von Muhlenen, 2009). No items were placed in the 4 grid positions surrounding fixation or the 6 grid positions in the corner of each quadrant farthest from fixation. The 6



targets for each condition were placed such that all quadrants had at least one target but not more than two targets. The eccentricity of targets from fixation was equated between conditions. The Ls were randomly distributed while ensuring the same number of total items were in each quadrant of the display. The repeated-standard and repeated-secondary context conditions each had 6 configuration types with fixed T and L locations. Random context trials had 6 configuration types with fixed T locations and randomly generated L locations. Each of the configuration types were shown once per block during the training phase. For counterbalancing, the T locations were swapped between repeated-standard and repeated-secondary condition within a group of 2 participants.

The repeated-standard, repeated-secondary, and random displays were randomly intermixed within blocks. Trials were separated by a fixation dot ( $0.1^\circ$ ).

### Test phase

The secondary task was no longer shown during test. The training phase's repeated-standard and repeated-secondary condition displays had the T location swapped with a distractor L located in another quadrant of the screen on half of the trials; resulting in the T being in an "inconsistent" location. On the other half of trials, the T remained in the same location as during training ("consistent" location). L locations remained the

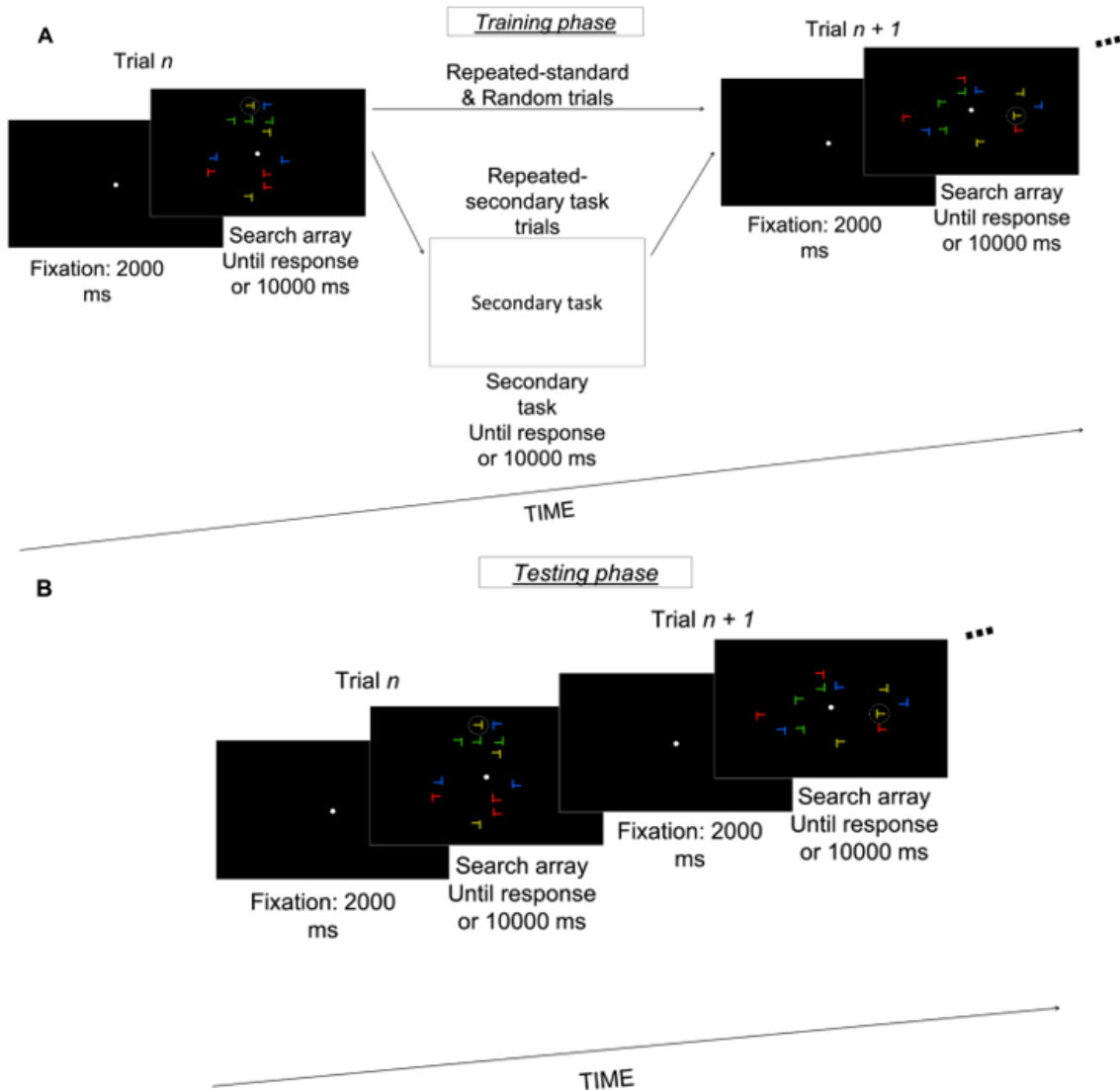


Figure 2:1. Trial sequence overview.

**A)** Training phase trial sequence. Subjects only had a secondary task after the “repeated-secondary task” condition trials. See Fig. 2.2 for secondary task details for each experiment.

**B)** Test phase trial sequence. Secondary task was no longer present. Only “repeated-standard” and “repeated-secondary task” conditions were included. The target “T” location was either the same as during the training phase (consistent) or swapped with a distractor during the test phase (inconsistent). See text for additional details.

same (unless swapped with the target). On inconsistent trials, the target was swapped into each of the other 3 quadrants at least once. The test phase methods were inspired by somewhat similar swapping methods (Makovski & Jiang, 2010).

### Secondary task

Specific secondary task details are described with each separate experiment. For experiments 2 & 3, the following details were shared. Displays were created with 12 squares. Squares were placed within the same matrix system used to place items for the T among L search. The squares were arranged to allow the display to have an axis of symmetry about the horizontal or vertical axis of the computer screen. Whether the display was horizontally or vertically symmetric was randomly assigned. On half of trials, the display was symmetric, the other half asymmetric. A single square was jittered from its central location in the cell either  $-0.74^\circ$ ,  $-0.62^\circ$ ,  $+0.62^\circ$ , and  $+0.74^\circ$  for experiment 2 or  $0.50^\circ$ ,  $-0.37^\circ$ ,  $+0.37^\circ$ , and  $+0.50^\circ$  for experiment 3 in order to make a display asymmetric. See figure 2.2 for further details.

### Explicit Awareness Phase

Subjects were shown on the screen an explanation about the display repetitions that occurred during the experiment (this was also verbally explained by an experimenter). A question was displayed on the computer screen asking the subject if they noticed the display repetitions. The generation task composed of 48 trials then occurred. The target T in the 6 repeated-standard and 6 repeated-secondary displays from the training phase had been replaced by an L, and each of these displays was shown 4 times.

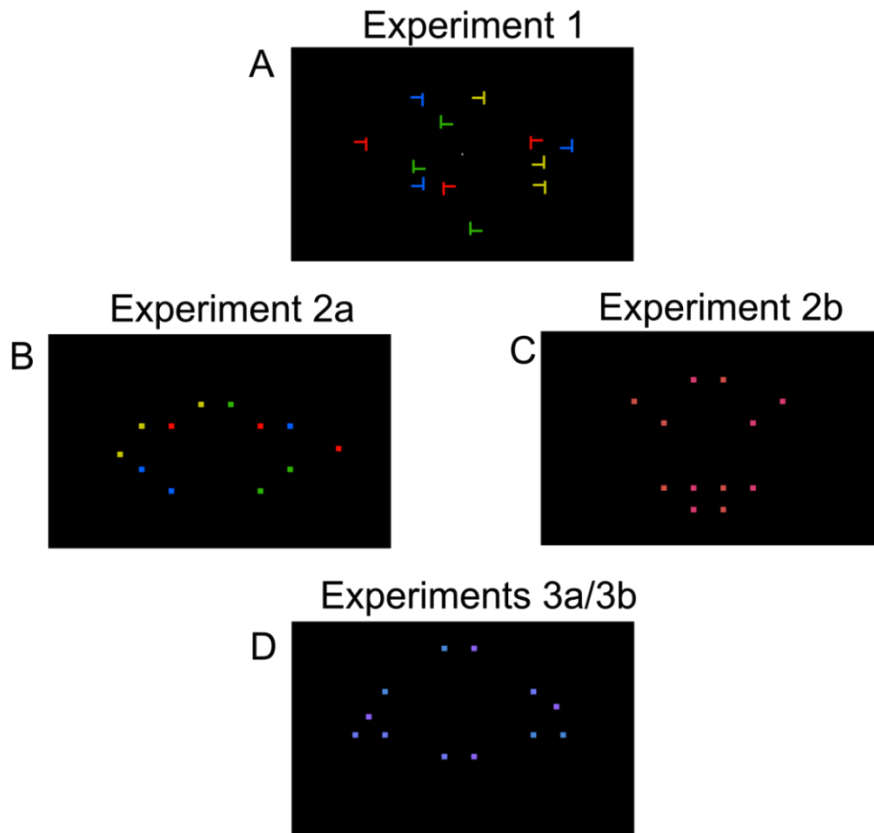


Figure 2:2. Secondary task displays.

A) Experiment 1: T among L search. Participants completed a T among L search composed of a random spatial arrangement of items. B) Experiment 2a: Symmetry judgement. Participants judged if display was symmetric about the vertical or horizontal meridian. Colors sampled from T among L search color range. C) Experiment 2b: Color discrimination. Participants were tasked with deciding if there were 1 or 2 colors in the display. Colors sampled from a perceptually uniform color map with 256 possible color values with a hue difference between colors of 15. D) Experiment 3a: Symmetry discrimination & Experiment 3b: Color discrimination. Displays for both experiments were the same. Participants were given different task instructions for each experiment. Displays were either symmetric or non-symmetrical and contained 2 or 3 colors. Colors sampled from a perceptually uniform color map with 256 possible color values with a hue difference between colors of 15. Panels B & D depict non-symmetrical displays about the vertical axis. Panel C depicts a 2-color display. Panel D depicts a 3-color display. Stimuli are exaggerated to make symmetry and color differences more noticeable. Symmetry and color hue deviations were more demanding in actual experiments.

## *Procedure*

### *Training phase*

The experiment began with instruction and 24 practice trials of random displays. Subjects then began the 25 blocks of 18 trials. Each trial began with a central fixation dot for 2s. Subjects were instructed to look at the dot when it appeared on screen. The T among L search array was then shown. Participants were told to search for the sideways T, and to press the '1' key if the stem of the T pointed left, and the '2' key if the stem of the T pointed right. Subjects were instructed to search as quickly and accurately as possible. The search array remained on screen until the subject made a response or 10s had elapsed. On random and repeated-standard trials, the next trial began immediately with the appearance of another fixation dot. On repeated-secondary task trials, after making a response or 10s had elapsed, the search array was immediately replaced by the secondary task display for that experiment. Subjects were instructed to complete the secondary task as accurately and quickly as they completed the search task. The secondary task remained on screen until response or 10s had elapsed. At the conclusion of the secondary task, the next trial began immediately with the appearance of another fixation dot. See figure 2.1 for overview.

Subjects were given breaks at the end of each block. During this time, subjects were provided a percent accurate score for both the search task and the secondary task. I opted to not provide performance feedback after each trial as to not disrupt the start of the secondary task. For experiment 1 (there was only 1 score since only the secondary task was a T among L search. If accuracy for the search task was below 95% (experiment 1)

or 90% (experiments 2-3), or accuracy for the secondary tasks in experiments 2-3 was less than 80% subjects were told to try to be more accurate on the next block. If accuracy was above these thresholds, subjects were told to keep up the good work. Breaks were self-timed and subjects could start the next block when ready.

### Secondary task

See specific experiments for details.

### Testing phase

The testing phase made up the last 4 blocks of 24 trials of the experiment and begin immediately after the training phase concluded. The approximate length of the testing phase was the same as training (the 6 secondary tasks were simply replaced by 6 visual searches). During this phase, the secondary task was not shown to subjects. Instead, only the repeated-standard and repeated-secondary displays (with consistent/inconsistent target locations) were shown. See figure 2.1 for overview.

In experiments 1 and 2 subjects were not informed there would be anything different about these final 4 blocks; subjects on their own continued on to the test phase. In experiment 3, an experimenter explicitly told the subject before the testing phase began that there would be no more secondary tasks in the experiment, but everything else would remain the same. The subject was instructed to continue doing the T among L search as they had been during the training phase. Subjects continued to get performance feedback for the search task during breaks at the end of each block.

### Explicit awareness phase

After the testing phase, an experimenter entered the room and informed the subject of the display repetition. Subjects were asked if they noticed the display repetition during the experiment and responded by pressing the '1' key for yes or the '2' key for no. Subjects then had to complete a 48 trial generation task. The target T in the 6 repeated-standard and 6 repeated-secondary displays from the training phase had been replaced by an L, and each of these displays was shown 4 times. Subjects were instructed to use the mouse to click on the L they thought used to be the T based on their search experience during the experiment.

### Data Analysis

#### Training phase

Descriptive statistics for both the search task, secondary task, and explicit awareness task will be presented. For the search task, trials on which subjects were inaccurate, had a response time less than 300ms, or had a within condition response time above their individual mean condition response time were excluded. Data was organized into 5 epochs of 5 blocks each for the training phase. An average RT for each subject, epoch, and condition was calculated and used for analysis. I conducted a 3 (condition) X 5 (epoch) repeated measures ANOVA with RT as the dependent measure, with follow up comparisons if significant effects or interactions were found. I additionally planned to collapse data across epochs 3-5 and use paired samples t-tests to compare the random vs. repeated-standard conditions, random vs. repeated-secondary conditions, and for the

critical comparison repeated-standard vs. repeated-secondary. The same analysis was done for error rates.

### Testing phase

Data was excluded based on the same criteria used during the training phase. All 4 blocks of the testing phase were collapsed into a single epoch. A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. The same was done for error rates. Paired t-tests to directly compare consistent and inconsistent RTs for both the repeated-standard and repeated-secondary conditions, regardless of the 2 X 2 ANOVA results, were conducted.

### Combined training and test phase analysis

A 2 phase (training epoch 5 vs. test) X 2 condition (repeated-standard vs. repeated-secondary) ANOVA with RT as the dependent measure, was performed as a manipulation check to investigate RT between the last epoch of the training phase and the test phase with follow up comparisons if significant. The same was done for error rates.

### Between experiment analyses

I conducted a 2 (experiment, between subjects) X 3 (RT collapsed across epochs 2-5 for the standard, secondary, and random conditions) mixed design ANOVA to assess for differences across experiments with follow up comparisons if a significant effect of experiment or an interaction.

### Target location guessing task analysis



The percentage of participants claiming awareness/unawareness was calculated. The overall average accuracy for selecting the correct quadrant and specific location was calculated and compared to chance accuracy using a one-sample t-test. The average accuracy for each condition was calculated and compared to chance accuracy with a one-sample t-test. A one-way ANOVA was used to determine if accuracy significantly differs between conditions, followed by paired sample t-tests if significant.

### **Experiment 1: T among L search secondary task during consolidation**

In this experiment, I wanted to utilize a non-math based secondary task to assess if disrupting the consolidation period immediately after visual search concludes could affect the emergence of contextual cueing. To do so, I elected to have the secondary task be another T among L search display that participants were required to complete as soon as they finished the prior visual search. Essentially, following repeated-secondary task trials, subjects would be completing two T among L search trials back to back with no inter-trial interval. I expected that using a T among L search as the secondary task would increase the difficulty of the experiment, require the use of cognitive spatial resources, and ensure subjects' attention was sufficiently captured away from the previously displayed repeated context. Based on the previous work, I hypothesized I would see a reduction in contextual cueing for repeated-secondary task displays compared to repeated-standard displays during the training phase. During the testing phase, I hope to be able to determine whether learning or the expression of learning is impacted during the testing phase.

### **Method**

Methods were the same as outlined in the general methods section with the following details specific to this experiment.

### Participants

I had a predetermined sample size of 50 subjects (23 M, 27 F) aged 18-25 (M=19.4). Three participants were removed and replaced due to low accuracy ( $>2.5$  standard deviations below the group mean). An additional subject with an overall accuracy of 78.6% needed to be excluded after the fact due to the preregistered exclusion criteria not accounting for lower than 80% accuracy. All of the below data analysis was repeated with this additional subject excluded.

### **Stimuli and Design**

#### *Search Task*

Ts and Ls were colored red (255, 0, 0), green (0,180, 0), blue (0, 100, 255), and yellow (200, 200, 0), and presented on a black (0, 0, 0) background.

#### *Secondary task*

The stimuli were exactly the same as normal search trials. These displays did not contain any spatial regularities (e.g. they were random displays) with targets shown in locations not used for the 3 main conditions. Subjects were informed to complete these searches exactly as the others in the experiment.

### **Results**

#### Training Phase

#### *Response Times*

A 3 (condition) X 3 epoch (epochs 3-5) repeated measures ANOVA for response time found a significant effect of epoch  $F(2,98)=9.749, p<0.001, \eta p^2 = 0.166$  which indicates RTs improved due to improved search performance over time. The effect of condition was marginally significant  $F(2,98)= 2.391, p=0.097, \eta p^2 = 0.047$ . There was no significant interaction  $F<1$ . With the additional excluded subject, the results did not differ greatly; condition  $F(2,96)=2.717, p=0.071, \eta p^2 = 0.054$ ; epoch ( $F(2,96)=8.526, p<0.001, \eta p^2 = 0.151$ ); interaction  $F<1$ .

I next conducted the planned paired samples t-tests assessing differences between the three conditions for RT collapsed across epochs 3-5. For the critical comparison, I found no significant difference in RT between the repeated-standard and repeated-secondary conditions  $t(49) = -1.098, p=0.278$ . I did not find a significant RT difference between the random and repeated-secondary conditions  $t(49)=1.068, p=0.291$ , while I did between the random and repeated-standard conditions  $t(49)=2.229, p=0.030$ . These results indicate that while the repeated-standard and repeated-secondary task response times did not differ, a contextual cueing effect only emerged for the repeated-standard condition. There was no evidence that contextual cueing occurred for the repeated-secondary task condition. With the additional subject excluded, the results did not differ greatly (repeated-standard vs. repeated-secondary task  $t(48) = -1.077, p=0.278$ ; random vs. repeated-standard  $t(48) = 2.389, p=0.021$ ; random vs. repeated-secondary task  $t(48) = 1.231, p=0.224$ ).

Overall response time for the secondary random T among L search displays was 3706 ms (SD=471 ms) A paired samples t-test was conducted to assess average response

time between the secondary task and the search task. RTs were significantly slower for the secondary task random displays  $t(49)=-6.504, p<0.001$ . These results were not drastically different when the low accuracy subject was excluded  $t(48)=-6.359, p<0.001$ .

### *Accuracy*

Overall accuracy for the search task during the training phase was 97.2% (SD=3.8%). A 3 (condition) X 3 (epochs 3-5) repeated measures ANOVA of error rates found no significant main effects or interaction, all  $F_s < 1$ . All  $F_s$  were also  $< 1$  when additional low accuracy subject was excluded.

Overall accuracy for the secondary task random search displays was 96.8% (SD=4.6%). A paired samples T test revealed error rates for the secondary task random displays were not significantly different from the standard random displays  $t(49)=1.2946, p=0.20$ . Results were similar when the low accuracy subject was removed  $t(48)=1.360, p=0.18$ .

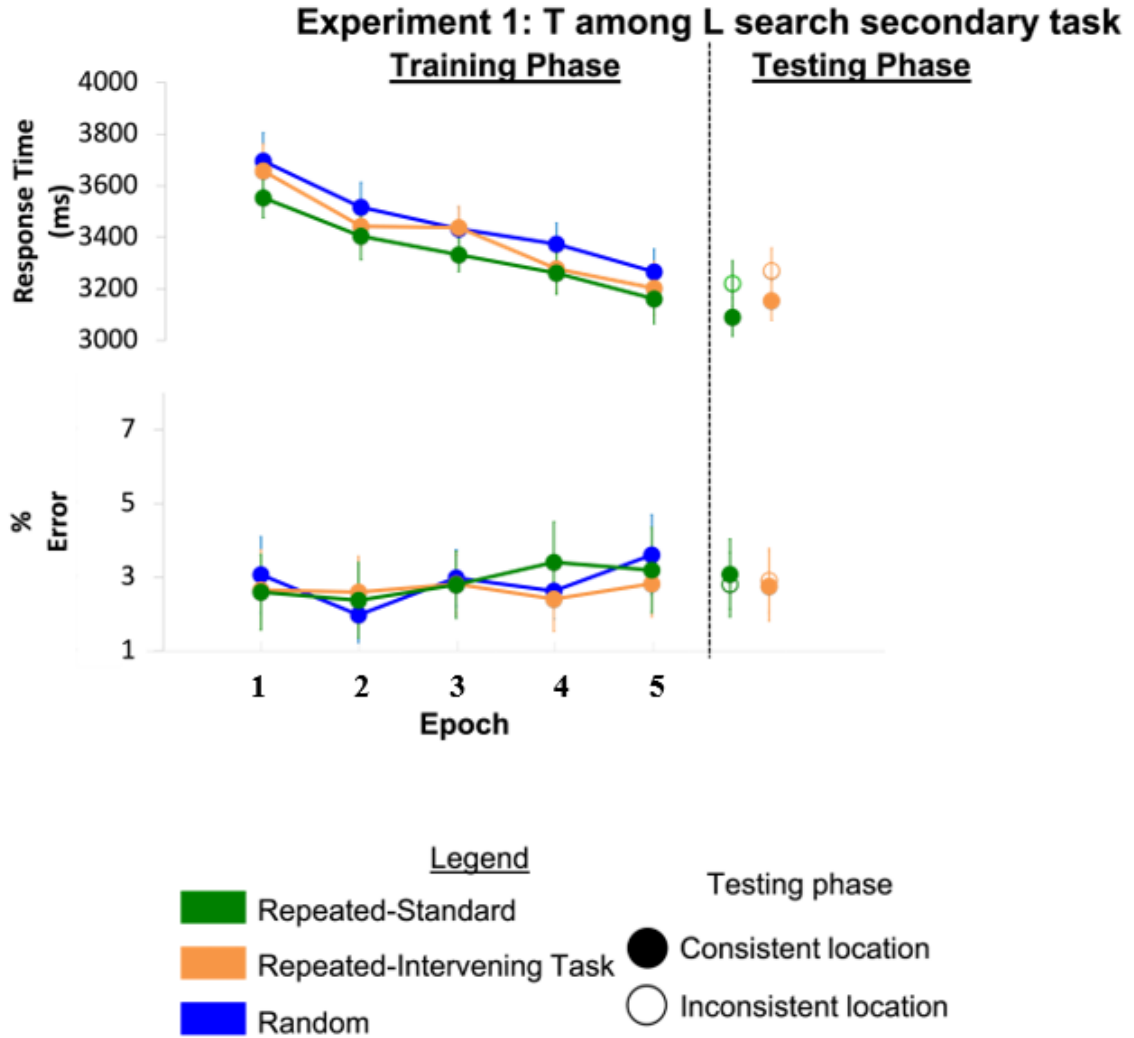


Figure 2:3. Experiment 1 response times and error rates.

RTs and error rates for each epoch of the training phase and testing phase for the search task in experiment 1. Error bars depict the with subject 95% confidence interval calculated using the Cousineau method (Cousineau, 2005) with a Morey correction (Morey, 2008).

## Testing phase

### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. As expected, response times were significantly faster when the target was in a location consistent with the training phase location than when it was in an inconsistent location,  $F(1,49)=6.949, p=0.011, \eta p^2 = 0.124$ . There were no other significant effects or interactions (all  $F_s < 1.2, p_s > 0.28$ ). I additionally conducted paired samples t-tests comparing the consistent RTs with the inconsistent RTs for each condition. I found marginally significantly faster RTs for the consistent displays than the inconsistent displays for the repeated-standard condition  $t(49)=-1.804, p=0.077$ , and for the repeated-secondary conditions  $t(49)=-1.907, p=0.062$ . The faster RTs for the consistent displays compared to the inconsistent displays suggest that learning of the repeated contexts had taken place during training for both the repeated-standard and repeated-secondary conditions.

After excluding the additional low accuracy subject, results were not significantly different. Target location  $F(1,48)=6.303, p=0.015, \eta p^2 = 0.116$ . All other  $F_s < 1.04$ . The paired-samples t-tests were also not drastically different, repeated-standard consistent vs. inconsistent  $t(48)=-1.731, p=0.090$ ; repeated-secondary task consistent vs. inconsistent  $t(48)=-1.795, p=0.079$ .

### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with error rates as the dependent measure. There were no significant main effects or interaction, all  $F_s < 1$ . All  $F_s$  were also  $< 1$  when additional low accuracy subject was excluded.

### Combined training and test phase analysis

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary consistent) X 2 phase (training epoch 5 vs. test) ANOVA with RT as the dependent measure, was performed as a manipulation check to investigate RT between the last epoch of the training phase and the test phase. There were no significant findings all  $F_s < 1.4$ , all  $p_s > 0.25$ . All  $F_s < 1.41$ ,  $p_s > 0.24$  when additional subject was excluded.

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary consistent) X 2 phase (training epoch 5 vs. test) ANOVA with error rate as the dependent measure, was performed as a manipulation check to investigate errors between the last epoch of the training phase and the test phase. There were no significant findings, all  $F_s < 1$ . All  $F_s$  were also  $< 1$  when additional low accuracy subject was excluded.

### Explicit Awareness Phase

The overall percentage of participants claiming awareness of the repeating displays was 42%. The overall average accuracy for selecting the correct quadrant and specific target location was 24.8% and 6.4% respectively. Neither of these were significantly different from chance guessing, 25% and 8.3% respectively. Average

accuracies for the repeated-standard and repeated-secondary displays were not significantly different from chance or from each other. It did not appear that subjects had any explicit knowledge about the repeated displays.

## **Discussion**

A marginally significant effect of condition on response times, and significant cueing for the repeated-standard displays but not for the repeated-secondary displays during the training phase indicated that contextual cueing could indeed be attenuated by a secondary task during the consolidation period. I additionally found evidence that cueing continued to be attenuated for the repeated-secondary condition during the test phase when the secondary task was no longer present. These results hint that not only the expression of context learning was affected by the secondary task, but that learning itself was inhibited. Thus, it does not appear that only the expression of learning was attenuated during the training phase as has been proposed in past studies (Jiang & Leung, 2005).

This experiment suggested that learning of configural information could be attenuated by a T among L search during consolidation, however I sought to definitively show a lack of learning through a significant difference in the repeated-standard and repeated-secondary RTs during training and a significant lack of cueing during the test phase. I also wanted to assess whether the nature of the secondary task affects its ability to disrupt cueing. Due to the T among L search likely disrupting local spatial processing of the preceding repeated display, and previous studies finding only a spatial based secondary task could attenuate cueing (Manginelli et al., 2013), I elected to use a spatial secondary task in the next experiment.



## **Experiment 2a: Spatial symmetry discrimination secondary task during consolidation**

In this next experiment, I altered the secondary task to be a spatial symmetry discrimination task. This secondary task required subjects to determine if a display of 12 squares was arranged symmetrically or asymmetrically. This secondary task removed the search component present in the previous experiment that required subjects to locally process each individual item on the screen. Rather, the symmetry discrimination task should lead subjects to rely more on global spatial processing of the display to identify symmetry; eliminating the possibility that cueing was only disrupted in experiment 1 due to the disruption of local item processing. I also made the symmetry discrimination task a non-working memory task. Previous research has found only a working memory secondary task has the ability to affect contextual cueing. Hence in this second experiment, I wanted to determine if cueing could be disrupted by a non-working memory task that required spatial processing of the display.

### **Method**

Methods were the same as outlined in the general methods section and the previous experiment. The only difference was the swapping of the T among L search secondary task for the symmetry discrimination task.

#### *Participants*

I had a predetermined sample size of 50 subjects (30 M, 20 F) aged 18-33 (M=20.68). Two participants were removed and replaced due to low accuracy (>2.5 standard deviations below the group mean).

#### *Stimuli and Design*

### *Search Task*

Ts and Ls were colored red (255, 0, 0), green (0,180, 0), blue (0, 100, 255), and yellow (200, 200, 0), and presented on a black (0, 0, 0) background.

### *Secondary task*

The squares of the display were colored the same as the items in the search task display. Subjects were tasked with deciding if the displays shown to them were symmetric or not symmetric about either the vertical or horizontal axes by pressing the 2 or 1 key respectively.

## **Results**

### *Training Phase*

#### *Response Times*

A 3 (condition) X 3 epoch (epochs 3-5) repeated measures ANOVA for response time found a marginally significant effect of epoch  $F(2,98)=2.954, p=0.057, \eta p^2 = 0.057$  which indicates RTs improved due to improved search performance over time. The effect of condition was significant  $F(2,98)= 4.424, p=0.014, \eta p^2 = 0.083$ , with the repeated-standard condition having the fastest RTs. There was no significant interaction  $F<1.7, p=0.17$ .

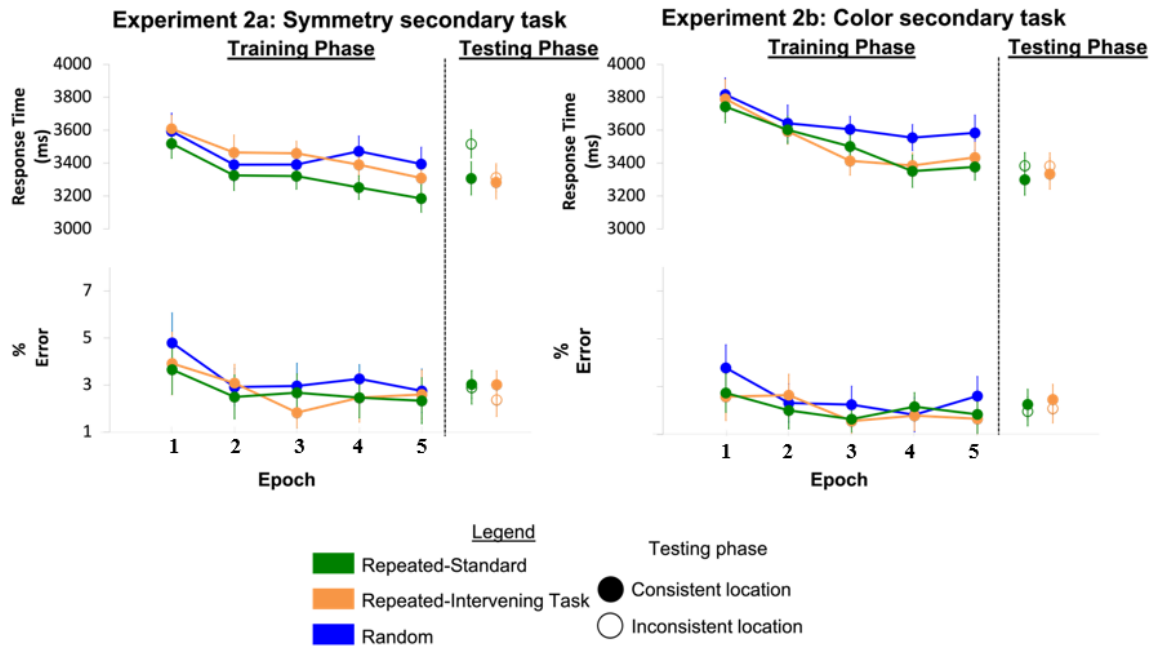


Figure 2:4. Experiments 2a & 2b response times and error rates.

RTs and error rates for each epoch of the training phase and testing phase for the search task in experiments 2a & 2b. Error bars depict the with subject 95% confidence interval calculated using the Cousineau method (Cousineau, 2005) with a Morey correction (Morey, 2008).

I next conducted paired samples t-tests assessing differences between the three conditions for RT collapsed across epochs 3-5. For the critical comparison, I found a significant difference in RT between the repeated-standard and repeated-secondary conditions  $t(49) = -2.258, p=0.028$ . I did not find an RT difference between the random and repeated-secondary conditions  $t(49)=-0.644, p=0.523$ , while I did between the random and repeated-standard conditions  $t(49)=-2.509, p=0.015$ . This result provides evidence that a contextual cueing effect did not emerge for the repeated-secondary task condition. Importantly, the significant difference between the repeated-standard and

repeated-secondary RTs indicates that the secondary task resulted in a failure to express cueing for repeated displays.

Overall response time for the secondary symmetry discrimination task was 3172 ms (SD=856 ms) A paired samples t-test was conducted to assess average response time between the secondary task and the search task. RTs were marginally significantly faster for the secondary task  $t(49)=1.874, p=0.067$ .

### *Accuracy*

Overall accuracy for the search task during the training phase was 97.1% (SD=4.5%). A 3 (condition) X 3 (epochs 3-5) repeated measures ANOVA of error rates found no significant findings (all  $F_s < 1$ ).

Overall accuracy for the secondary symmetry discrimination task was 84.4% (SD=9.8%). A paired samples T test revealed the error rate for the secondary task was significantly higher than for the search task  $t(49)=11.867, p<0.001$ . Thus, the secondary task was much more difficult than the T among L search.

### *Testing phase*

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. As expected, response times were significantly faster when the target was in a location consistent with the training phase location than when it was in an inconsistent location,  $F(1,49)=4.588, p=0.037, \eta p^2 = 0.086$ . There was a marginally significant effect of condition where response times were faster for repeated-secondary

displays than for repeated-standard displays,  $F(1,49)=3.416$ ,  $p=0.071$ ,  $\eta p^2 = 0.065$ .

There was also a marginally significant interaction  $F(1,49)=3.075$ ,  $p=0.086$ ,  $\eta p^2 = 0.059$ . Paired samples t-tests comparing the consistent RTs with the inconsistent RTs for each condition found a significant difference for the repeated-standard condition  $t(49)=-2.987$ ,  $p=0.004$ , while no difference was found for the repeated-secondary condition  $t(49)=-0.354$ ,  $p=0.725$ . This provides evidence for learning of repeated contexts during training in the repeated-standard displays but not for the repeated-secondary displays.

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with accuracy as the dependent measure. There were no significant main effects or interactions, all  $F_s < 1$ .

#### *Combined training and test phase analysis*

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 phase (training epoch 5 vs. test phase consistent location) ANOVA with RT as the dependent measure, was performed as a manipulation check. The aim was to investigate RT between the last epoch of the training phase and the test phase consistent location condition to ensure the test phase did not cause an alteration in search times when the target remained in a predictive location. There were no significant findings (all  $F_s < 2.8$ ,  $p_s > 0.1$ ).

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary consistent) X 2 phase (training epoch 5 vs. test) ANOVA with error rate as the dependent measure, was

performed as a manipulation check to investigate errors between the last epoch of the training phase and the test phase. There were no significant findings, all  $F_s < 1$ .

### Explicit Awareness Phase

The overall percentage of participants claiming awareness of the repeating displays was 36%. The overall average accuracy for selecting the correct quadrant was 25.7% which was not significantly different from chance guessing of 25%. The average accuracy for selecting the specific target location was 6.5% which was significantly worse than the chance guessing rate of 8.3%,  $t(49)=2.62$ ,  $p=0.012$ . This significantly worse guessing for the specific target location was driven by the worse than chance performance for the repeated-standard displays  $t(49)=2.41$ ,  $p=0.020$ . I do not have any particular hypothesis regarding worse than chance performance, thus I attribute these results to type 1 error. Average accuracies for the repeated-standard and repeated-secondary displays were not significantly different from chance or from each other. Subjects did not appear to have any explicit knowledge of contextual regularities leading to better performance.

### **Discussion**

The results of this experiment demonstrated that a non-working memory, spatial symmetry discrimination secondary task during the consolidation period could attenuate cueing in both the training and test phases. While the test phase had a limited number of trials, the lack of cueing during test does suggest that disrupting consolidation actually prevented the learning of configural information from occurring. This is in contrast to

other work suggesting that a secondary task does not impact learning, it only affects the expression of that learned information (Manginelli et al., 2012, 2013; Annac et al., 2013).

Furthermore, the results again showed that a secondary task 1) does not need to be a working memory task and 2) does not need to occur concurrently with the search task in order to attenuate cueing. However, I have not fully investigated all the characteristics of the secondary task that could impact cueing.

### **Experiment 2b: Non-spatial color discrimination secondary task during consolidation**

In the previous experiment, I utilized a spatial secondary task. However, I wanted to determine if a non-spatial task during the consolidation period could also affect the development of a contextual cueing effect. Previous research has found that only a spatial based secondary task has the ability to disrupt cueing (Manginelli et al., 2013), however these studies were based on a working memory secondary task that occurred concurrently with the search task. In this experiment, I sought to use a non-spatial color discrimination secondary task to assess if a spatial processing disruption was specifically required to attenuate contextual cueing.

#### **Method**

Methods were the same as outlined in the general methods section and the previous experiment. The only difference was the secondary task. In this experiment, subjects were shown 12 squares and had to determine if the squares were all the same color, or if two colors were present in the display.

#### *Participants*

I had a predetermined sample size of 50 subjects (19 M, 31 F) aged 18-35 (M=21.30). Two participants were removed and replaced (2 due to being above the age cutoff, 1 for self-identifying as color blind after the start of the experiment, and one due to low accuracy (>2.5 standard deviations below the group mean)).

### *Stimuli and Design*

#### *Search Task*

Ts and Ls were colored red (255, 0, 0), green (0,180, 0), blue (0, 100, 255), and yellow (200, 200, 0), and presented on a black (0, 0, 0) background.

#### *Secondary task*

On half of the secondary task trials, 6 squares were 1 color while the other 6 were a different color. On the other half of secondary task trials, all squares were the same color. Colors were chosen from a perceptually uniform color map with 256 possible color values. The hue difference between colors on 2 color trials was 15. Subjects were tasked with deciding if the displays shown to them contained 1 or 2 colors by pressing the 1 or 2 keys respectively.

## **Results**

### *Training Phase*

#### *Response Times*

A 3 (condition) X 3 epoch (epochs 3-5) repeated measures ANOVA for response time found a significant main effect of condition  $F(2,98)= 7.577, p<0.001, \eta p^2 = 0.134$ . There were no other significant results  $F<1.9, p>0.16$ .



Paired sample t-tests were then conducted. For the critical comparison, there was not a significant difference in RT between the repeated-standard and repeated-secondary conditions  $t(49)=-0.029, p=0.977$ . There was a significant difference between the random and repeated-secondary conditions  $t(49)=3.407, p=0.001$  and between the random and repeated-standard conditions  $t(49)=3.303, p=0.002$ . This result provides evidence that a contextual cueing effect emerged for both the repeated-standard condition and the repeated-secondary task condition. The non-spatial color discrimination task did not appear to impact the development of a contextual cueing effect.

Overall response time for the secondary color discrimination task was 2028 ms (SD=61 ms) A paired samples t-test was conducted to assess average response time between the secondary task and the search task. RTs were significantly faster for the secondary task  $t(49)=15.194, p<0.0001$ .

#### *Accuracy*

Overall accuracy for the search task during the training phase was 97.6% (SD=2.2%). A 3 (condition) X 3 (epochs 3-5) repeated measures ANOVA of error rates found no significant effects or interaction, all  $F_s<1.6, p_s>0.2$ .

Overall accuracy for the secondary color discrimination task was 87.3% (SD=7.1%). A paired samples T test revealed the error rate for the secondary task was significantly higher than for the search task  $t(49)=-10.622, p<0.001$ .

#### *Testing phase*

##### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. There were no significant findings (all  $F_s < 1.4$ ,  $p_s > 0.2$ ). Numerically, RTs for inconsistent displays were slower than for consistent displays, but paired samples t-tests indicated these differences were not significant for either condition,  $t < 1$ ,  $p > 0.3$ . Thus, it does not appear that there is evidence of cueing during test phase.

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with error rates as the dependent measure. There were no significant findings, all  $F_s < 1$ .

#### *Combined training and test phase analysis*

##### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 phase (training epoch 5 vs. test phase consistent location) ANOVA with RT as the dependent measure, was performed as a manipulation check. The aim was to investigate RT between the last epoch of the training phase and the test phase consistent location condition to ensure the test phase did not cause an alteration in search times when the target remained in a predictive location. There was a significant effect of phase  $F(1,49)=4.903$ ,  $p=0.031$ ,  $\eta p^2 = 0.091$  with RTs for both conditions being faster during the test phase than during the last epoch of epoch of training. This could be expected given the continued improvement of search overtime. There were no other significant findings,  $F_s < 1$ .

### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary consistent) X 2 phase (training epoch 5 vs. test) ANOVA with error rate as the dependent measure, was performed as a manipulation check to investigate errors between the last epoch of the training phase and the test phase. There were no significant findings, all  $F$ 's  $< 2.6$ ,  $p$ 's  $> 0.1$ .

### *Explicit Awareness Phase*

The overall percentage of participants claiming awareness of the repeating displays was 48%. The overall average accuracy for selecting the correct quadrant was 26.5% which was not significantly different from chance guessing of 25%. The average accuracy for selecting the specific target location was 5.6% which was significantly worse than the chance guessing rate of 8.3%,  $t(49)=4.499$ ,  $p<0.0001$ . This significantly worse guessing for the specific target location was driven by the worse than chance performance for both the repeated-standard displays  $t(49)=3.827$ ,  $p=0.0004$  and the repeated-secondary displays  $t(49)=2.958$ ,  $p=0.0048$ . I attribute these results to type 1 error. Average accuracies for the repeated-standard and repeated-secondary displays were not significantly different from chance or from each other. Subjects did not appear to have any explicit knowledge of contextual regularities leading to better performance.

### **Discussion**

The results of this experiment indicated that the type of secondary task may matter. A non-spatial color-based task did not attenuate contextual cueing. In this experiment, the contextual cueing effect for the repeated-secondary condition was as robust as the cueing effect for the repeated-standard condition. This result though did not

carry over into the test phase when the secondary task was removed. Thus far, the results of experiments 1, 2a & 2b suggest that a non-working memory spatial secondary task can attenuate cueing, but a non-spatial task cannot.

### **Experiment 3a: Spatial symmetry discrimination secondary task during consolidation**

Given the previous results, I wished to replicate the findings from experiments 2a and 2b with preregistered experiments. Since the contextual cueing effects were not always particularly robust with lower effect sizes and because of different stimuli used for the secondary task, I also wanted to adjust the methods to hopefully improve results and eliminate confounds. Experiment 3a is a replication attempt of experiment 2a.

#### **Method**

Methods were the same as outlined in the general methods section with the following details specific to this experiment.

For both experiments 3a and 3b, I first decided to make all the T among L search stimuli white rather than multi-colored as in the previous experiments. I hoped that using a single color would reduce any color based contextual cueing or focus on color by the participants (Kunar et al., 2006). This change would potentially lead us to seeing greater cueing effects overall.

I additionally elected to make the displays for the secondary task the same for both experiments. The magnitude of the impact of the secondary task on cueing could have differed due to unique stimuli being used for experiments 2a and 2b. For example, utilizing the same stimuli colors for the secondary and search tasks in experiment 2a may

have inadvertently enhanced the interfering effect color of the secondary task. To address this, I ensured that all stimuli were the same for the secondary task with the only difference between experiments being the secondary task instructions provided to the subjects.

In experiment 2, response times for the secondary task were faster than for the search task. I wanted to have response times more similar between the search and secondary tasks without a large increase in error rates. To do this, for the symmetry discrimination, I decreased the number of degrees a single square was jittered from (-30 25 25 30) to (-20 -15 15 20) in order to make the discrimination task harder. For the color discrimination, I asked subjects to indicate if there were 2 or 3 colors in the display rather than 1 or 2 like in the previous experiments. This allowed me to enhance the difficulty of the secondary tasks which I hoped would slow subjects down to near search task response times.

Lastly, in the previous experiments, participants were not informed about the transition from the training phase to the test phase. As a result, they were not explicitly told about the secondary task no longer being required. Not providing this information to participants may have influenced the testing phase results due to subjects still having lingering expectations about the experiment from the training phase. Instead for experiments 3a and 3b, an experimenter verbally told subjects they would no longer need to complete the secondary task for the remainder of the experiment.

### *Sample size rationale*

Due to methodological differences between experiments 3a/b and 2a/b, I would not accurately be able to determine the required sample size from experiments 2a and 2b. Since I did not want to run an excessive number of subjects, I opted to do sequential analyses of the data at predefined points during data collection using the methods described in Lakens et al. (2014). I conducted sequential analyses when the sample size reached 50, 75, and a maximum of 100 subjects (after replacing low accuracy subjects at each of these checkpoints). At each of these analysis points, the p-value for the critical t-test (standard vs. secondary task RT) was compared to the interim adjusted nominal alpha value calculated for each checkpoint. These adjusted alpha values would control for the increase in type 1 error rate. If the p-value at the checkpoints was less than or equal to the adjusted nominal alpha value, I would stop data collection. If the p-value at the checkpoints was greater than the adjusted nominal alpha value, I continued data collection (unless at 100 subjects). If the effect size was ever less than 0.15, I would stop data collection.

### *Participants*

107 subjects completed experiment 3a. Seven subjects had to be removed and replaced due to low accuracy (>2.5 standard deviations below the group mean). Three of these subjects were replaced at the 50 subject checkpoint, one at the 75, and three at the 100. I found that the critical p-value at the 50 ( $p=0.679$ ), 75 ( $p=0.849$ ), and 100 ( $p=0.980$ ) subject checkpoints was never below the interim adjusted nominal alpha value. At 100 subjects I ceased data collection (55 M, 45 F) aged 18-33 ( $M=18.84$ ).

## ***Stimuli and Design***

### *Search Task*

Ts and Ls were colored white (170, 170, 170), and presented on a black (0, 0, 0) background.

### *Secondary task*

On half of the secondary task trials, 6 squares were 1 color while the other 6 were a different color. On the other half of secondary task trials, 4 of the squares are 1 color, 4 were another color, and 4 were another separate color. Colors were chosen from a perceptually uniform color map with 256 possible color values. The hue difference between colors was 15. These displays were the same as those used in experiment 3b. Subjects were tasked with deciding if the displays shown to them were symmetric or not symmetric about either the vertical or horizontal axes by pressing the 2 or 1 key respectively. Participants were told color was irrelevant to the task.

## **Results**

### *Training Phase*

#### *Response Times*

A 3 (condition) X 3 epoch (epochs 3-5) repeated measures ANOVA for response time found a significant effect of epoch  $F(1.651, 163.427)=3.806, p=0.032, \eta p^2 = 0.037$  (Greenhouse-Geiser corrected) which indicates RTs improved due to improved search performance over time. The effect of condition was significant  $F(2, 198)= 9.761, p<0.001, \eta p^2 = 0.090$  with the repeated-secondary condition having the fastest RTs overall. There was no significant interaction  $F<1.5, p>0.2$ .

I next conducted paired samples t-tests assessing differences between the three conditions for RT collapsed across epochs 3-5. For the critical comparison, I found no significant difference in RT between the repeated-standard and repeated-secondary conditions  $t(99) = -0.019, p=0.985$ . I did find a significant RT difference between the random and repeated-secondary conditions  $t(99)=4.164, p<0.001$ , and between the random and repeated-standard conditions  $t(99)=3.825, p<0.001$ . This result provides evidence that a contextual cueing effect successfully emerged for both the repeated-secondary task condition and the repeated-standard conditions.

Overall response time for the secondary symmetry discrimination task was 2966 ms (SD=845 ms). A paired samples t-test was conducted to assess average response time between the secondary task and the search task. RTs were significantly faster for the secondary task  $t(99)=4.260, p<0.001$ .

#### *Accuracy*

Overall accuracy for the search task during the training phase was 97.5% (SD=3.3%). A 3 (condition) X 3 (epochs 3-5) repeated measures ANOVA of error rates found no significant findings, all  $F_s<1.6, p_s>0.2$ .

Overall accuracy for the secondary symmetry discrimination task was 83.8% (SD=9.0%). A paired samples T test revealed the error rate for the secondary task was significantly higher than for the search task  $t(99)=15.711, p<0.001$ .



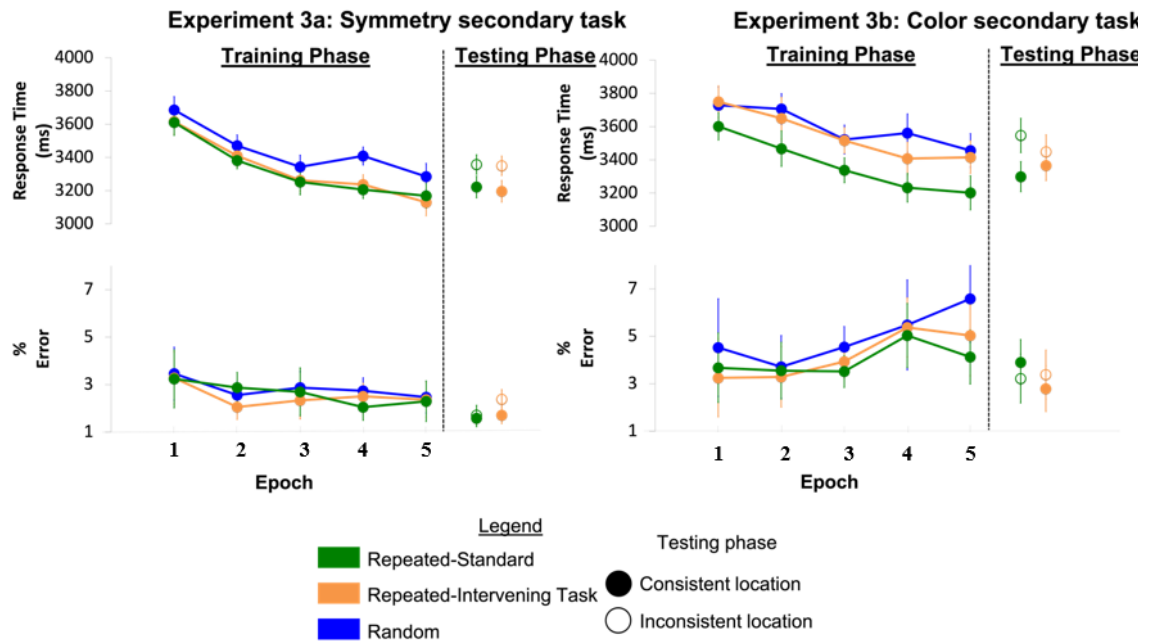


Figure 2.5. Experiments 3a & 3b response times and error rates.

RTs and error rates for each epoch of the training phase and testing phase for the search task in experiments 3a & 3b. Error bars depict the with subject 95% confidence interval calculated using the Cousineau method (Cousineau, 2005) with a Morey correction (Morey, 2008).

### Testing phase

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. As expected, response times were significantly faster when the target was in a location consistent with the training phase location than when it was in an inconsistent location,  $F(1,99)=16.982$ ,  $p<0.001$ ,  $\eta p^2 = 0.146$ . There was no significant effect of condition or an interaction,  $F_s<1$ . Paired samples t-tests comparing the consistent RTs with the inconsistent RTs for each condition found a significant difference for the repeated-standard condition  $t(99)=2.617$ ,  $p=0.010$ , and for the repeated-secondary condition  $t(99)=3.111$ ,  $p=0.002$ . This provides evidence for learning of repeated contexts during training in the repeated-standard and repeated-secondary displays.

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with error rates as the dependent measure. There were no significant findings, all  $F_s<2.6$ ,  $p_s>0.1$ .

### Combined training and test phase analysis

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 phase (training epoch 5 vs. test phase consistent location) ANOVA with RT as the dependent measure, was performed as a manipulation check. The aim was to investigate RT between the last epoch of the training phase and the test phase consistent location condition to ensure the

test phase did not cause an alteration in search times when the target remained in a predictive location. There were no significant findings, all  $F_s < 2.3$ ,  $p_s > 0.1$ .

### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 phase (training epoch 5 vs. test phase consistent location) ANOVA with RT as the dependent measure, was performed as a manipulation check. There were no significant findings, all  $F_s < 2.7$ ,  $p_s > 0.1$ .

### *Explicit Awareness Phase*

The overall percentage of participants claiming awareness of the repeating displays was 47%. The overall average accuracy for selecting the correct quadrant was 27.3% and was significantly better than chance guessing (25%)  $t(99) = 3.09$ ,  $p = 0.0026$ . This appears to be primarily driven by better than chance performance on the repeated-secondary displays  $t(99) = 2.76$ ,  $p = 0.0069$  rather than the repeated-standard displays  $t(99) = 1.57$ ,  $p = 0.119$ . Due to the significant quadrant guessing accuracy, I conducted a mixed repeated measures ANOVA with condition (repeated-standard, repeated-secondary) as the within-subjects factor and awareness (aware, unaware) as the between-subjects condition to assess the impact of awareness. There was no significant interaction. There was a significant main effect of awareness. Mean quadrant guessing accuracy was 3.7% greater if subjects claimed they were aware of repeating displays  $F(1,98) = 6.847$ ,  $p = 0.010$ ,  $\eta^2 = 0.065$ . To assess if this significant effect of awareness affected response times, I conducted a mixed repeated measures ANOVA with condition (repeated-standard, repeated-secondary, random training phase RTs collapsed across epochs 3 to 5)

as the within-subjects factor and awareness (aware, unaware) as the between-subjects factor. There was no significant interaction. There was no main effect of awareness,  $F < 1$ . Thus, while it does appear awareness may have played a role in successful quadrant selection accuracy for the repeated-secondary task condition, awareness did not influence RTs. Accuracy for selecting the specific target location overall was 8.2% and was not significantly different from chance guessing (8.3%).

## **Discussion**

This experiment did not demonstrate an attenuation of cueing due to the secondary task. This result is in contrast to the results of experiment 2a in which the spatial based secondary task did in fact reduce cuing for the repeated-secondary condition. While I cannot be sure of the reason, I can speculate that the change in the search task stimuli color, and secondary task color and difficulty may have affected results. It is possible these changes led to a more robust cueing effect overall that was not able to be disrupted by the secondary task. It is also a possibility that not having the secondary task displays composed of the same colors as the search task (as in experiment 2a) eliminated the interfering effect of color. This would suggest that the color similarity led to an interference in the acquisition of location specific contextual information in experiment 2a.

### **Experiment 3b: Non-spatial color symmetry discrimination secondary task during consolidation**

This experiment is a replication of experiment 2b. All methods were the same as experiment 3a, except for the secondary task instructions provided to participants. I was

interested in once again assessing whether the previous results replicated, and specifically if a non-spatial color discrimination task disrupted cueing.

## **Method**

Methods were the same as outlined in the general methods section with the following details specific to this experiment.

### ***Participants***

53 subjects completed experiment 3b at the first 50 subject checkpoint. Three subjects were removed and replaced (1 due to claiming some color blindness, 2 for low accuracy ( $>2.5$  standard deviations below the group mean)). This resulted in the predetermined first checkpoint sample size of 50. I found that the critical p-value ( $p=0.002044$ ) was less than the interim adjusted nominal alpha value of 0.003050, which led me to cease data collection, resulting in a final sample size of 50 subjects (26 M, 24 F) aged 18-35 ( $M=19.10$ ). An additional 2 subjects with overall accuracies of 77.0% and 71.4% needed to be excluded after the fact due to the preregistered exclusion criteria not accounting for lower than 80% accuracy. All of the below data analysis was repeated with these additional subjects excluded. With these 2 subjects excluded, the critical p-value became 0.003081, which is not lower than the 50 subject interim adjusted nominal alpha value. This indicates that if the preregistration had included removing lower than 80% accuracy subjects, I would have needed to continue running an additional 25 subjects.

### ***Stimuli and Design***

#### ***Search Task***

Ts and Ls were colored white (170, 170, 170), and presented on a black (0, 0, 0) background.

### *Secondary task*

On half of the secondary task trials, 6 squares were 1 color while the other 6 were a different color. On the other half of secondary task trials, 4 of the squares are 1 color, 4 were another color, and 4 were another separate color. Colors were chosen from a perceptually uniform color map with 256 possible color values. The hue difference between colors on 2 and 3 color trials was 15. Subjects were tasked with deciding if the displays shown to them contained 2 or 3 colors by pressing the 1 or 2 keys.

## **Results**

### *Training Phase*

#### *Response Times*

A 3 (condition) X 3 epoch (epochs 3-5) repeated measures ANOVA for response time found a marginally significant effect of epoch  $F(2,98)=2.437, p=0.093, \eta p^2 = 0.047$  which indicates RTs improved due to improved search performance over time. The effect of condition was significant  $F(2,98) = 12.575, p<0.0001, \eta p^2 = 0.204$ . There was no significant interaction  $F<1$ . With the additional excluded subjects, the results did not differ greatly; condition  $F(2,94)=11.629, p<0.0001, \eta p^2 = 0.198$ ; epoch  $F(2,94)=2.690, p=0.073, \eta p^2 = 0.054$ ; interaction  $F<1$ .

I next conducted the planned paired samples t-tests assessing differences between my three conditions for RT collapsed across epochs 3-5. For the critical comparison, I found a significant difference in RT between the repeated-standard and repeated-

secondary conditions  $t(49) = -3.258, p=0.002$ . I did not find a significant RT difference between the random and repeated-secondary conditions  $t(49)=1.476, p=0.146$ , while I did between the random and repeated-standard conditions  $t(49)=4.680, p<0.0001$ . These results indicate that a contextual cueing effect only emerged for the repeated-standard condition and that there was a significant difference between the random-standard and the random-secondary conditions. There was no evidence that contextual cueing occurred for the repeated-secondary task condition. With the additional subjects excluded, the results did not differ greatly (repeated-standard vs. repeated-secondary task  $t(47) = -3.121, p=0.003$ ; random vs. repeated-standard  $t(47) = 4.736, p<0.0001$ ; random vs. repeated-secondary task  $t(47) = 1.284, p=0.205$ ).

Overall response time for the T among L search displays was 3219 ms (SD=1166 ms). A paired samples t-test was conducted to assess average response time between the secondary task and the search task. RTs were marginally significantly faster for the secondary task  $t(49)=1.749, p<0.087$ . These results did change when the additional 2 subjects were removed, overall RT for training phase was 3546 ms (SD=443 ms). The response times for the secondary task were no longer faster  $t(47)=1.365, p=0.179$ . The 2 additional subjects had faster RTs than other subjects.

### *Accuracy*

Overall accuracy for the search task during the training phase was 95.8% (SD=5.8%). A 3 (condition) X 3 (epochs 3-5) repeated measures ANOVA of error rates found a significant effect of condition  $F(2,98)=3.638, p=0.03, \eta^2 = 0.069$ . There was also a marginally significant effect of epoch  $F(1.670,81.839)=3.006, p=0.064, \eta^2 =$

0.058 (Greenhouse-Geisser corrected) with higher error rates in later epochs. There was no significant interaction  $F < 1$ . With the additional excluded subjects, the results did differ. There was no longer a significant effect of condition  $F(1,735,81.524) = 3.125$ ,  $p = 0.084$ ,  $\eta^2 = 0.062$  (Greenhouse-Geisser corrected), or epoch  $F(2,94) = 1.404$ ,  $p = 0.251$ ,  $\eta^2 = 0.029$ . There was no significant interaction  $F < 1$ .

Planned paired samples t-tests assessing differences between the three conditions for error collapsed across epochs 3-5 found no significant difference in error between the repeated-standard and repeated-secondary conditions  $t(49) = -1.157$ ,  $p = 0.253$ . There were marginally higher error rates for the random condition compared to the repeated-secondary condition  $t(49) = -1.687$ ,  $p = 0.098$ . There was a significantly higher error rate for the random condition compared to the repeated-standard condition  $t(49) = 2.462$ ,  $p < 0.017$ . It appears that error rates were higher for the random condition. With the additional subjects excluded however, there was significantly higher error rates for the random condition compared to the standard condition only  $t(47) = -2.114$ ,  $p = 0.040$ . Random vs. repeated-secondary  $t(47) = 1.225$ ,  $p = 0.227$  and repeated-standard vs. repeated-secondary task  $t(47) = 1.555$ ,  $p = 0.127$  were not significant.

Overall accuracy for the secondary symmetry discrimination task was 76.4% (SD=8.8%). A paired samples T test revealed the error rate for the secondary task was significantly higher than for the search task  $t(49) = 19.877$ ,  $p < 0.0001$ . Results were similar when the low accuracy subject was removed  $t(47) = 19.203$ ,  $p < 0.0001$ .

### Testing phase

#### *Response Times*



A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with RT as the dependent measure. As expected, response times were significantly faster when the target was in a location consistent with the training phase location than when it was in an inconsistent location,  $F(1,49)=8.195, p=0.006, \eta p^2 = 0.143$ . There was not a significant effect of condition or an interaction,  $F_s < 1.8, p_s > 0.19$ . The direction of results of not different when the 2 subjects were excluded: condition  $F(1,47)=6.765, p=0.012, \eta p^2 = 0.126$ , target location & interaction  $F_s < 1$ . Paired samples t-tests comparing the consistent RTs with the inconsistent RTs for each condition found a significant difference for the repeated-standard condition  $t(49)=-2.778, p=0.008$ . There was no significant difference for the repeated-secondary condition  $t(49)=-1.007, p=0.319$ . The direction of these paired t-tests were unchanged with the exclusion of the 2 subjects: repeated-standard  $t(47)=-2.461, p=0.018$ , repeated-secondary  $t(47)=-1.078, p=0.287$ . This provides evidence for learning of repeated contexts during training in the repeated-standard displays and for the repeated-secondary displays to some degree.

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 target location (consistent vs. inconsistent) repeated measures ANOVA was conducted with error rate as the dependent measure. There were no significant findings all  $F_s < 1$ . Results with the additional 2 subjects excluded were similar, all  $F_s < 1.9, p_s > 0.18$ .

#### *Combined training and test phase analysis*

#### *Response Times*

A 2 condition (repeated-standard vs. repeated-secondary) X 2 phase (training epoch 5 vs. test phase consistent location) ANOVA with RT as the dependent measure, was performed as a manipulation check. The aim was to investigate RT between the last epoch of the training phase and the test phase consistent location condition to ensure the test phase did not cause an alteration in search times when the target remained in a predictive location. There was a significant effect of condition  $F(1,49)=5.104, p=0.028$ , driven by a faster RT for the repeated-standard condition. There were no other significant findings. Results when excluding the 2 subjects were similar: condition  $F(1,47)=3.514, p=0.067$ , phase & interaction  $F_s < 1.4, p_s > 0.2$ .

#### *Accuracy*

A 2 condition (repeated-standard vs. repeated-secondary consistent) X 2 phase (training epoch 5 vs. test) ANOVA with error rate as the dependent measure, was performed as a manipulation check to investigate errors between the last epoch of the training phase and the test phase. There were no significant findings, all  $F_s < 2.3, p_s > 0.13$ . Results were similar with the exclusion of the 2 subjects all  $F_s < 1.8, p_s > 0.19$ .

#### *Explicit Awareness Phase*

The overall percentage of participants claiming awareness of the repeating displays was 48%. The overall average accuracy for selecting the correct quadrant and specific target location was 26.5% and 7.7% respectively. Neither of these were better than chance guessing. Average accuracies for the repeated-standard and repeated-secondary displays were not significantly different from chance or from each other.

### **Discussion**

This experiment found that the color discrimination secondary task did in fact lead to an attenuation of contextual cueing. This is in contrast to the results of experiment 2b which did not find an effect of the non-spatial color discrimination task on cueing. Similar to experiment 3a I cannot be sure of the reason for the results not replicating, but again I can speculate that the changes in search task stimuli color, and secondary task color and difficulty may have affected results. For example, the increased difficulty of the color discrimination lengthened the amount of time needed to complete the secondary task which could have caused the interference of the secondary task to be increased.

### **Across experiment analysis**

To assess for RT differences across experiments, I conducted a 5 (experiment, between subjects) X 3 (RT collapsed across epochs 3-5 for the standard, secondary, and random conditions) mixed repeated measures ANOVA. There was a marginally statistically significant interaction between condition and experiment on RT,  $F(7.827, 577.266) = 1.881, p = 0.062, \eta^2 = 0.025$  (Greenhouse-Geisser corrected). There was no main effect of experiment,  $F(4, 295) = 2.006, p = 0.094, \eta^2 = 0.026$  which suggests there were no large differences in response times across experiments. There was a statistically significant main effect of condition,  $F(1.957, 577.266) = 28.715, p < 0.0001, \eta^2 = 0.089$  (Greenhouse-Geisser corrected). Pairwise comparisons confirmed that the RTs for the repeated-standard and repeated-secondary conditions were significantly faster than random,  $t(299) = 7.393, p < 0.0001$  and  $t(299) = 5.006, p < 0.0001$  respectively. There was also significantly faster RTs for the repeated-standard condition than the repeated-secondary condition  $t(299) = 2.826, p = 0.005$ . These results further confirm that there is an

attenuation of cueing due to the secondary task when RT data is collapsed across experiment.

I also wanted to determine if contextual cueing effect magnitudes were different between experiments. Post-hoc, I conducted 5 (experiment, between subjects) X 1 (contextual cueing magnitude for the repeated-standard and repeated-secondary conditions) mixed repeated measures ANOVAs to assess for differences across experiments. The cueing magnitude for the repeated-standard and repeated-secondary conditions did not differ significantly between experiments,  $F(4,295)=1.161, p = 0.328, \eta^2 p^2 = 0.016$  and  $F(4,295)=1.664, p=0.158, \eta^2 p^2 = 0.158$  respectively. These results indicate that any cueing effects were able to manifest similarly in all experiments. Thus, while I found stunted cueing due to the secondary task in some experiments but not others, I cannot say this resulted simply due to having significantly more cueing in one experiment than another. This suggests that the stunting of cueing due to the secondary task that I found in some experiments was not simply the result of being unable to develop a cueing effect in general. Rather, the inconsistent results appear to be due to aspects of the secondary tasks themselves.

### **Meta-analysis**

For completeness, I additionally conducted a likelihood-based random-effects meta-analysis using JASP (JASP Team, 2020) and included 10 experiments. The 10 experiments (all experiments presented here along with 5 additional experiments not covered in this paper) were all conducted in the lab. The additional experiments were Exp A (n=24), Exp B (n=24), Exp C (n=23), Exp D (n=48), Exp E (n=48) which all utilized a

simple addition math problem as the secondary task. The meta-analysis results (figure 2.6) revealed that even with varying secondary tasks and levels of search difficulty, the contextual cueing is attenuated when the consolidation period is disrupted. The average effect size (Cohen's *d*) across all experiments was 0.16 (95% CI: 0.03-0.30). While the effect size is small, the confidence interval provides further evidence of the findings.

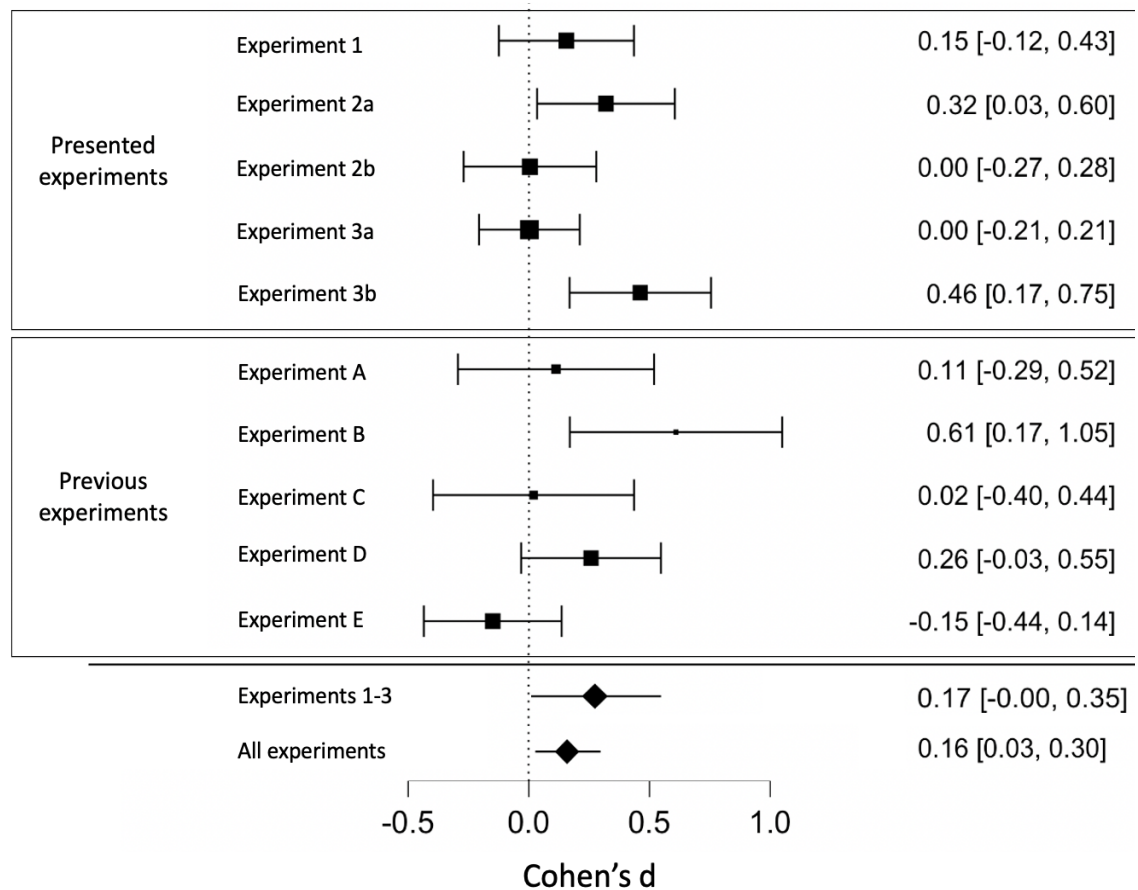


Figure 2:6. Meta-analysis of all experiments

Forest plot displaying Cohen's *d* and the 95% confidence interval for each experiment and the summary effect sizes.

## Discussion

The primary aim of the study was to investigate how the contextual cueing effect was impacted by a secondary task that occurred immediately after the T among L search had concluded. I additionally sought to investigate previous findings claiming the secondary task had to specifically draw upon spatial working memory resources to interfere with cueing, and if it is the expression rather than the learning of contextual information that is impacted by a secondary task (Manginelli et al. 2012, 2013; Travis et al., 2013; Annac et al., 2013). The results provided evidence that having a secondary task, both spatial and non-spatial, immediately during the inter-trial interval led to a diminished acquisition of contextual information. A meta-analysis including all the experiments I have conducted thus far supported this conclusion and found that even with varying secondary tasks and degrees of search task difficulty, the contextual cueing effect was attenuated. These results directly contradict previous research that has found diminished cueing only when the secondary task is completed concurrently with the search task and draws upon spatial working memory resources (Annac et al., 2013). I additionally contradicted previous studies by showing a failure to learn repeated contexts rather than a failure to express that learning. This refutes previous findings and any assumptions that may exist in the literature that implicit configural learning will manifest despite taxing attentional or WM resources; the search task was uninterrupted yet subjects still failed to learn. To my knowledge, the results are the first demonstrating that interrupting the time after the target search can attenuate the contextual cueing effect.

I have surmised from the results that the immediate secondary task after search may be disrupting the critical time needed for successful consolidation of a long-term memory trace for contextual information. This appears to be the case given that experiments 1, 2a, and 3b resulted in subjects not displaying either a contextual cueing effect during training or a learning effect during the test phase; indicating a failure to establish a long-term memory. If it was the expression of learning impacted by the task, I would expect to see a learning effect during the test phase when the secondary task was no longer present.

Questions remain regarding the mechanisms by which this disruption in learning is occurring. An explanation for the lack of learning may lie in the interplay between working memory and long-term memory. There is evidence that the processing that occurs while information is held or manipulated in working memory can influence subsequent LTM performance. This is especially relevant if short term memory (STM) consolidation plays an initial role in successful LTM consolidation through a single consolidation mechanism (Dudai, 2004). One such process is maintaining information in WM. The longer information is maintained in WM, for example through attentional refreshing (Barrouillet & Camos, 2012; Lemaire et al., 2018; Portrat & Lemaire, 2014; Camos et al., 2018) or retrieval from LTM (McCabe, 2008), the better the subsequent LTM performance (Camos & Portrat, 2015; Johnson et al., 2002; Loaiza & McCabe, 2013; Souza & Oberauer, 2017; see Hartshorne & Makovski, 2019 for review).

Another process to consider is short-term consolidation which is an attentional and central resource demanding process that produces stable working memory

representations from perceptual memories (Chun & Potter, 1995; Jolicoeur & Dell'Acqua, 1998; Ricker & Hardman, 2017). Short-term consolidation occurs over seconds to hours and results from localized cellular mechanisms leading to long-term potentiation. It has recently been demonstrated that consolidating items in working memory, rather than merely attending to them, improved long-term recognition performance (Cotton & Ricker, 2021). Thus, Cotton & Ricker speculated that longer maintenance times in WM lead to better LTM because it allows greater time for consolidation to take place. The time needed for short-term consolidation increases as the number of items to be consolidated increases (Jolicoeur & Dell'Acqua, 1998; Vogel et al., 2006), thus it would conceivably take longer than 50 ms an item (Vogel et al., 2006) to consolidate the associations in a repeated array. In addition, attention on the stimuli can help consolidation even if the stimuli are no longer visible (Jolicoeur & Dell'Acqua, 1998; Nieuwenstein & Wyble, 2014; Ricker & Cowan, 2014). Applying this information to the results, it appears that the secondary task may direct attentional resources away from the encoded contextual information leading to decreased attentional refreshing and maintenance of the information in WM. Due to this interference, short-term consolidation would not be able to successfully occur, resulting in a poor LTM trace and the absence of a contextual cueing effect.

I did not always see a consistent effect of the secondary task on cueing. The spatial secondary task attenuated cueing in experiment 2a, but not in experiment 3a, and the non-spatial task attenuated cueing in experiment 3b but not in 2b. I do not believe one experiment was more likely to lead to contextual cueing than another given that there was



no significant difference in the magnitude of the cueing effect itself between experiments. This leads me to consider other factors that could have influenced whether the secondary task had an impact on cueing. For example, the inconsistency in the spatial vs. non-spatial results could be due to both types of tasks taxing the same resources. I anticipated the spatial task would require subjects to attend to the spatial relationships between items which would not be needed for the non-spatial task. The non-spatial task should only have required subjects to compare a non-spatial feature from one item to another. However, when subjects' attention was occupied comparing the colors of the items during the non-spatial task, they may have still been encoding the spatial relationships (Jiang & Leung, 2005). Thus, it is possible a spatial processing component was present for both types of tasks. Unpublished experiments I conducted using a simple math problem as the non-spatial secondary task also found cueing attenuation, however some evidence exists that math ability involves a spatial component (Dehaene et al., 1993; Fias & Fischer, 2005). Altogether, it is possible all of the secondary tasks had an inherent spatial component which would suggest taxing spatial resources specifically during consolidation affects cueing.

It is also possible that the results were due to the duration and difficulty of the secondary task itself. Response times and error rates (used as a measure of difficulty) for the color discrimination secondary task were significantly different between experiments 2b and 3b; 1191 ms slower for experiment 3b than for 2b  $t(74.030)=6.395, p<0.0001$  and error rates were 10.9% greater for experiment 3b than 2b  $t(98)=6.825, p<0.0001$ . Numerically, response times for the symmetry discrimination task were 205 ms slower

for experiment 2a than experiment 3a  $t(148)=1.40, p=0.164$ , with no difference in error rates  $t(148)=0.367, p=0.714$ . Thus, for the experiments in which I did see significant cueing attenuation, the secondary task took longer to complete and was more difficult. A longer and more difficult secondary task during the consolidation period could direct attention away from the encoded search array held in WM, possibly leading to consolidation interference.

Another factor could be the secondary task sharing similarities with the search task. This may be the case for experiment 2a in which the secondary task stimuli consisted of the same colors as the search task stimuli. This color similarity was no longer present during experiment 3a. This could explain why despite experiments 2a and 3a not having significant differences in RT or accuracy, experiment 2a found significant cueing attenuation. Experiment 1 may also be an example of this due to its use of another T among L search as the secondary task. It is possible having stimuli feature similarity could introduce additional interference during consolidation leading to an inaccurate memory trace.

An often overlooked factor is the T among L search difficulty itself. All of the experiments used L stimuli that looked very similar to the T, leading to increased difficulty of search. This is in contrast to many other contextual cueing experiments in which the vertical and horizontal lines of the L stimuli are at or near a 0 degree offset. A more difficult search task requires a longer time to distinguish between stimuli, and greater attentional resources. It appears that this more difficult search may lead to greater examination of spatial locations and a greater ability to extract contextual associations up

to a point (Rausei et al., 2007). Previous work (Jiang & Chun, 2001) has also suggested that a more difficult search requires extensive attentional resources which prevents attention from “spilling” over to unattended items. In Jiang & Chun’s experiments 1-3, subjects were told to pay attention to only one subset of T among L search stimuli. If search was too easy (the L’s were visually dissimilar to the T), subjects demonstrated contextual cueing for both the attended and unattended subsets. Their results were explained using the perceptual load theory (Lavie, 1995), which posits that greater attentional selection can be achieved with a higher attentional load. In the case of the contextual cueing experiments, if the Ls are similar to the T then search difficulty is high and subjects need to devote greater attentional resources to the search. This limits the amount of resources available to “spill” over to other tasks (Lavie & Tsai, 1994). Since the search task requires a high proportion of attentional resources during the active search phase, it is likely there continues to be a high requirement for attentional resources to successfully consolidate the encoded information. The secondary task could be limiting the attentional resources available for consolidation, leading to interference when attempting to establish a long-term memory trace of the contextual information. This explanation may explain why the previous experiment by Annac et al. (2013) did not find a decreased contextual cueing effect when the secondary working memory task followed the search. In Annac et al. (2013) the stems of the L stimuli were always at 90-degree angles. This 90-degree stimuli leads to a much easier visual search as demonstrated by the response times being ~1000ms compared to over 3000ms for studies that have used stem offsets making the Ls difficult to distinguish from the T. In my unpublished work, I

additionally found evidence that having an easy search task (similar to Jiang & Chun, 2001, Feldmann-Wüstefeld & Schubo, 2014) does not lead to contextual cueing deficits with a math secondary task while a more difficult search task does. Thus, perhaps the less demanding search in the Annac et al. (2013) study, made it easier for subjects to consolidate the information despite having attentional resources occupied, or consolidation was able to begin even before the search stimuli were no longer visible. Search difficulty may be a reason why under a dual-task setting, previous studies did not find an effect of the secondary task on the learning of spatial regularities (Manginelli et al. 2012, 2013; Annac et al., 2013, 2018; Travis et al., 2013; Wang et al., 2021).

How can I combine the secondary task results with those from a dual task setting to better explain implicit contextual learning? Recall that the consensus of dual task studies is that learning can occur while WM and attentional resources are taxed during the search, but the expression of learning is prevented. I have speculated based on the results that diminished attentional resources after the search affect the success of WM processes leading to a lack of learning, but do not impact the expression of learning. Can the effect of a secondary task be that different depending on when it occurs in the contextual cueing time course? It is possible that both attention and WM play a significant role in the learning of contextual information, but that latent learning is able to take place despite a concurrent secondary task under certain circumstances. These circumstances are likely factors relating to task difficulty as suggested by the Travis et al. (2013) experiment 2 in which the secondary WM task did affect learning but only when the search task difficulty was increased through the inclusion of both repeated and

random displays. This also seems to be the case given the Chen et al. (2019) study showing a high WM load task that required manipulating information affect contextual learning. Thus, it is possible that a secondary task has a similar role during both encoding and consolidation, but that its impact depends on how other task factors influence attention and working memory processes.

I placed the secondary task immediately after the search task concluded which prevented subjects from having any empty time during the trial. Due to this, I cannot say anything about the actual time course of consolidation in contextual cueing other than an immediate secondary task does not provide adequate time. It would be interesting for future studies to adjust the length of time available for consolidation, similar to what is done in visual working memory experiments where the stimuli are masked after various periods of time (Vogel et al., 2006). These types of experiments could provide critical information about how long an inter-trial interval should be in a contextual cueing study. Unpublished work from the lab found that lengthening the inter-trial interval from 1 second to 4 seconds made the magnitude of the contextual cueing effect go from non-significant to significant. A further increase to 7 seconds produced only a marginal improvement over the 4 second condition. This led me to make the inter-trial interval 2 seconds in the presented studies. These results are similar to results from Jolicoeur & Dell'Acqua that showed diminished RT benefits in a visual working memory task when the consolidation time approached 2 seconds (Jolicoeur & Dell'Acqua, 1998). These results suggest that the magnitude of the cueing effect seen in some experiments could actually be artificially low due to too short of an inter-trial interval.

An important point to make is that there appears to be a great deal of variability in the effect of a secondary task on contextual cueing. In a dual-task setting, several studies indicated that only a visuospatial WM task prevented the expression but not the learning of spatial regularities (Manginelli et al. 2012; Manginelli, Langer, et al., 2013; Manginelli, Baumgartner & Pollmann, 2013; and Annac et al., 2013). Others indicated learning of spatial regularities could also be impacted (Travis et al., 2013; Chen et al., 2019). Yet others found that cueing was not affected in any way by their secondary task (Vickery et al., 2010; Wang et al., 2020). Even among experiments by the same group there are variable result, similar to what occurred for me (Manginelli et al. 2012; Travis et al., 2013). This much variability could arise for multiple reasons. It could be explained by the variability with the demonstration of a contextual cueing effect itself. There are individual differences in the displayed magnitude of the contextual cueing effect between subjects and even within individuals (Jiang et al., 2005) and it has been shown that only a handful of the repeated displays are driving the cueing effect (Smyth & Shanks, 2008). This may exemplify the possibility that the effects of implicit learning do not always emerge all the time between or within individuals (Reber et al., 1991). The variability could also be explained by the differing methods and secondary tasks used in each experiment. To truly analyze the impact of a secondary task on contextual cueing, it seems it would be necessary to conduct within-subjects studies using the exact same methods for each type of secondary task.

The results have broader impacts on contextual cueing and implicit learning than I first anticipated. I initially sought to only investigate the role a secondary task can have

on the contextual cueing effect. I now realize there is much more that can be learned from studying the role of the inter-trial interval, secondary tasks, and other factors on implicit context learning in general. First, it is my hope that more consideration is paid to the time between trials in a cueing experiment. It may be the case that cueing effects that would have emerged did not due to inter-trial intervals that were too short or complicated by additional stimuli. I also believe the results highlight the need for consistency in experimental methods. Since there can be so many factors that can impact whether a cueing effect emerges, it is important to fully consider all aspects of one's experimental design. Lastly, I have also shown the lack of knowledge surrounding the time course of learning and the learning process itself in contextual cueing paradigms. While the basic premise of implicit long-term learning is generally accepted, there is still a great deal that is unknown about mechanisms and the time course of learning. There appear to be many nuanced factors that can influence whether a contextual cueing effect emerges.

In summary, this work provided the first evidence that contextual cueing could be attenuated by secondary task occurring after the T among L search. This attenuation appears to be the result of not learning the configural information contained in the display. I speculate this is due to the secondary task interfering with the long-term consolidation process, possibly through short-term consolidation interference or simply due to attentional resources being diverted away from the array. There are multiple factors that may be influencing the cueing attenuation I see which must be further studied. Overall, the results indicate that there is much yet to understand about the implicit learning process of contextual cueing and context learning.

### **Chapter 3. How does the context of illusory objects improve visual working memory performance?**

Note: The project this chapter focuses on was the undergraduate thesis for Elliot Ping. I mentored Elliot during this project and played a pivotal role in its development and execution. Thus, some parts of this chapter may appear similar to Elliot's thesis.



## Introduction

Our ability to manipulate and store the visual information we encounter allows us to navigate complex environments. An essential cognitive system that affords us these abilities is visual working memory (VWM). VWM is an online workspace where information can be stored and manipulated. This “workspace” allows one to continuously update and process visual information to complete ongoing tasks, but maintaining those items in VWM is both space and resource intensive (Luck & Vogel, 2013). Items in working memory must be actively kept there through attention to prevent their decay, a concept that was discussed in the previous chapter. However, this chapter is focused on the space limitations of VWM. Specifically, VWM is capacity limited with studies showing people can only maintain active representations of 3-4 items at any given time (Baddeley & Hitch, 1974, Luck & Vogel, 1997, 2013). There are two main theories regarding why this capacity limitation exists. The first is the slots model which posits that VWM only has a certain number of “slots” to store information. If all the slots are occupied, no more information can be held (Zhang & Luck, 2008). The second theory is the resource theory which assumes that VWM has a limited pool of resources that can be allocated to different items. The number of items that can be held in VWM can range from low to high, however as the number of items increases, resources per item decreases resulting in the precision of item representations being reduced (Alvarez & Cavanagh, 2004; Bayes & Husain, 2008; Awh et al., 2007; Brady et al., 2011; van den Berg et al., 2012).

The capacity limitation of VWM and the fidelity with which items can be remembered is unique to individuals. There are robust individual differences in VWM capacity that can influence behavioral outcomes (McNab & Klingberg, 2008; Vogel et al., 2005), such as the ability to prevent attention from being captured by salient but task irrelevant stimuli (Fukuda & Vogel, 2009). Such differences between individuals relate to several high-aptitude measures like verbal learning, problem solving, and fluid intelligence (Cowan et al., 2005; Cowan et al., 2006; Johnson et al., 2013; Fukuda et al., 2010; Unsworth et al., 2014). VWM capacity is even relevant in the clinical setting with schizophrenia patients have lower capacities than controls for example (Gold et al., 2003). Individuals with a higher VWM capacity tend to perform better on these metrics than those with a lower capacity (Zhang & Luck, 2008). Thus, VWM capacity is important to these basic cognitive functions that provide a foundation for such measures. In addition, as discussed in the previous chapter it appears that VWM has a role to play in the learning and expression of contextual task information. As a result, individual differences may also play a role in the ability of VWM to assist in the modulation of behavior by task context. VWM is thus very important in influencing behavioral outcomes which makes it important to study the mechanisms through which our VWM systems cope with their extreme capacity limitations.

Contextual grouping of information can influence how individuals are able to cope with their extreme VWM capacity limitations. This type of context can exert its influence by allowing people to group and parse information into integrated units in VWM (Allon et al., 2019; Baylis & Driver, 1992; Wang, Weng, & He, 2012; Li, Qian, &

Liang, 2018). Gestalt grouping represents the concept that we perceive some objects or elements as “going together” more than others (Wagemans, et al, 2012). There are several Gestalt grouping principles which can influence whether one object will appear to be grouped with others. For example, items that are near to one another in space are grouped by proximity. Other types of categories include how similar an item’s appearance is to others, connectedness, visual parallelism, and closure (Wagemans et al., 2012).

Researchers have studied how several of these Gestalt principles affect VWM. It has been found that connectedness, proximity, similarity, and closure grouping produce VWM performance benefits (Xu & Chun, 2006; Woodman et al., 2003; Allon et al., 2019; Xu, 2002, 2006). These findings suggest that the type of grouping context items are a part of (and not just the individual items), influences perception. Thus, it appears that Gestalt principles can tie together multiple facets of perception to influence what and how we perceive items.

This chapter will specially focus on an illusory contour context known as a Kanizsa triangle. A Kanizsa triangle (Figure 3.1) is a salient global figure perceived when an arrangement of pacman shaped inducers leads to modal completion of an illusory triangle (Kanizsa, 1976). Grouping objects into an illusory contour context has been shown to improve performance on VWM tasks (Gao, et al, 2016; Allon et al., 2019; Peterson, et al., 2015). For example, Allon and colleagues (2019) had subjects perform a change detection task to assess the impact of an illusory object. The visual working memory change detection task required subjects to view an array of items very briefly (200ms) while trying to remember either the color or shape of the items. The display

array was removed for a retention interval of 900 ms. Then subjects were shown a test item from the array and asked to report if a feature of the items (either color or orientation) was the same or different as before. Critically, the items in the arrays were arranged to either be separated from each other, near each other in space, or grouped in such a way to produce a Kanizsa triangle. It was found that the Kanizsa grouping led to the highest accuracy on the task, but only when orientations were reported. Due to the cut outs in the Kanizsa triangle inducers, it appears the triangle was more helpful in remembering orientations, and less helpful in remembering colors. Thus, when the

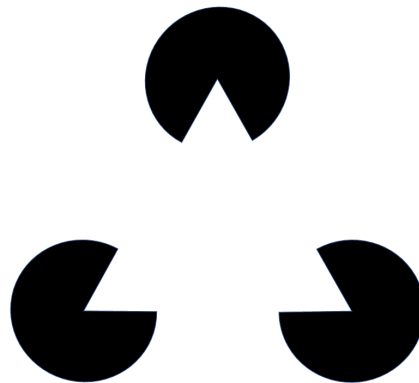


Figure 3:1. Kanizsa triangle.

Three “Pac-Man shapes”, oriented in a certain way, act as inducers to create an illusory triangle. The triangle does not actually exist but is visible due to the inside of the shape appearing brighter than the background, although they are the same color. This causes the triangle to appear opaque and superimposed on the pac-man inducers (Kanizsa, 1976).

Kanizsa triangle is present and is task relevant, VWM performance is improved. While the benefits of illusory objects on VWM performance are established, the mechanisms that lead to these benefits are less known. One possible mechanism could be that the Kanizsa triangle captures attention which has subsequent effects on information

processing and VWM. An illusory triangle is a very salient global figure that likely captures attention sooner than less salient local items like the inducers themselves (Conci, et al., 2011). This global precedence of illusory objects has been found early on during visual processing, ~75-190 ms following the appearance of the stimuli (Murray et al., 2004). At these early time points, electroencephalographic (EEG) studies have found larger amplitudes in signal components (N1 & P1) related to early sensory visual processing and attentional selection (Luck et al., 2000) in response to illusory objects vs. non-illusory objects (Conci et al., 2011). 240-340 ms after the stimulus first appeared, there are greater N2pc amplitudes for illusory objects than non-illusory objects. Since the N2pc is a component linked to attentional selection and capture (Eimer, 1996), it would appear the Gestalt stimuli attracted attention at this time due to the saliency of the stimuli (Stanley & Rubin, 2003). The Conci et al. (2011) results suggest that the Kanizsa triangle is perceived as a single highly salient unit early on during the visual processing hierarchy without the subject being consciously aware of the triangle. Only after the illusory object is consciously perceived can attentional selection of the item take place. At this point, attention is able to influence further processing of the stimuli and subsequent impacts on behavior. The component that is missing from this mechanism is visual working memory. It is unknown how early visual and attentional processes impact how a Kanizsa triangle is stored in VWM or how these processes help manifest behavioral performance improvements.

Several behavioral studies have investigated illusory objects and their role in VWM (Allon et al., 2019). While these studies have been very beneficial for

understanding how VWM may be impacted by an illusory object, they cannot provide a more thorough understanding of the underlying neural influences surrounding them. To this end, in this study I will be utilizing an EEG event related potential (ERP) measure called the contralateral delay activity (CDA) (Luria et al., 2016). The CDA (see Figure 3.2) is helpful for studying VWM because its amplitude increases as a function of the number of items currently held in VWM. Thus, it is able to provide detail regarding how much information is being stored in VWM. The CDA is calculated from activity measured from posterior brain electrode sites. This calculation involves subtracting the ipsilateral hemifield activity from the contralateral hemifield activity. Since the CDA is a difference measure, subjects must be cued to attend to one side of the screen or the other. The ipsilateral hemifield activity is assumed to encompass low level visual processing and the contralateral side reflects both low level and VWM activity, thus subtracting helps ‘clean’ the data.

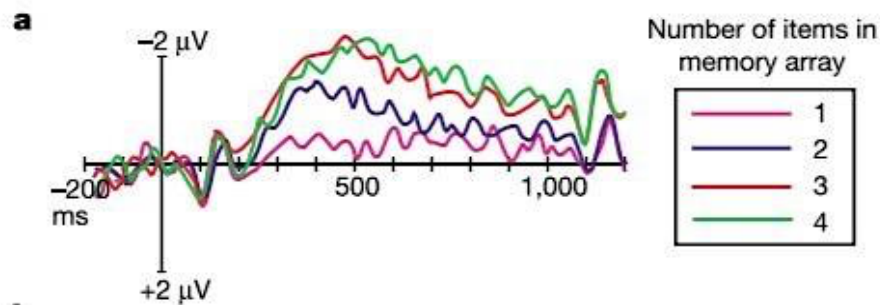


Figure 3:2. Contralateral delay activity waveform.

A Contralateral Delay Activity (CDA) waveform. The X-axis is time, the Y-axis is the CDA amplitude. The more objects are held in VWM the higher the CDA amplitude becomes until reaching one’s VWM capacity. Figure from Vogel & Machizawa (2004).

The CDA begins to emerge about 400 ms post-stimulus onset and is maintained for the entirety of the VWM maintenance period (Luria, et al., 2016; Vogel & Machizawa, 2004).

Thus the CDA is advantageous over other EEG components or behavioral measures because it helps isolate the measurement of VWM capacity from other processes, like the processing of low-level visual information (Kang & Woodman, 2014; McCollough et al., 2007) and the spatial positions on the screen (Ikkai et al., 2010; Balaban & Luria, 2015). EEG additionally has high temporal resolution which makes it especially good for measuring quickly evolving cognitive processes like VWM. The CDA asymptotes at a person's behaviorally measured VWM capacity (Vogel & Machizawa, 2004) which makes the CDA sensitive to individual differences in capacity. As a result of these CDA features, it is well suited for assessing how illusory objects are represented in VWM.

Previous studies have investigated grouped objects and illusory contours (Li, Qian, & Liang ; Allon et al., 2018; Peterson et al, 2015; Davis & Driver, 1994; Wang, Weng, & He, 2018), and demonstrated behavioral performance benefits due to the illusory objects. However, these studies did not have the necessary methods or comparisons to conclusively determine how we represent illusory objects in VWM. Grouping by connectedness, common region, color and collinearity have been shown to produce lower brain activity in frontal parietal and occipital regions as measured using EEG and fMRI than ungrouped stimuli (Xu & Chun 2006; Gao et al., 2011; Peterson et al., 2015). Another way illusory objects could be represented is through chunking which

is the grouping of information in VWM. This can reduce multiple items into a single integrated unit which would result in storing fewer items. This would indicate a Kanizsa triangle could be encoded as fewer than three objects. However, there are studies that have failed to show an effect of similarity and proximity grouping cues on CDA amplitude (Morey et al., 2015; Shen et al., 2013), thus it is also possible for the Kanizsa triangle to be represented as three items. If the triangle is indeed represented as three items, where do the behavioral benefits arise? It is possible that the illusory triangle allows for improved tagging of the inducers, resulting in improved object processing and encoding into VWM (Allon et al., 2019). This greater processing could lead to higher precision representations of the inducers to be stored in VWM, leading to the performance benefits. Another possibility is that the Kanizsa triangle is represented as less than three objects, but more than one object. This result could arise if the illusory object improves the efficiency with which items become stored in VWM, but not enough to reduce the total load. Thus, it is possible for the Kanizsa triangle to be represented as three distinct objects, as a single object, or perhaps something in between.

Investigating how we store objects in VWM is key for understanding how our VWM systems cope with their capacity limitations. Given how critical VWM is for our daily lives, and its correlations with high aptitude measures, this is an important area of study. Through this study it is hoped that understanding how VWM deals with capacity limitations will assist in improving human performance in cognitive tasks throughout daily life. We can hopefully gain insight into how we can improve our interactions with



our surroundings. Additionally, investigating individual differences in dealing with capacity limitations can lead to more individualized recommendations for improvement.

In the study, subjects were asked to remember the orientation of pac-man stimuli in a visual working memory change detection task. Importantly the way the pac-man stimuli were arranged on screen created different grouping-based contexts. There were four conditions in the experiment. One was a condition in which the pac-man inducers formed an illusory Kanizsa triangle. Also included were three control conditions (single object, three objects grouped by proximity, and three ungrouped objects) that would allow me to better determine how the illusory object was encoded into VWM. Past research suggested that the single object condition should have the lowest CDA, the ungrouped three object condition the highest, and the proximity grouped would fall somewhere in between. Having this range of expected CDA would allow me to determine how the Kanizsa triangle compared. Three potential outcomes could be expected. First, if the Kanizsa triangle allowed the pac-man inducers to be represented as a single object, the CDA would be similar to the single object condition. Second, if the Kanizsa triangle had no impact on how the pacmen were encoded into VWM, the CDA amplitude would be similar to the three object ungrouped condition. Third, the Kanizsa condition CDA could fall somewhere in the middle of the range if the illusory context helped reduce storage demands on VWM, but not enough to be represented as a single object. Lastly, there is a possibility the triangle could be represented as its own object which would result in the CDA being similar to holding four objects in VWM. Behaviorally, it was

expected to replicate Allon and colleagues (2019) previous findings showing that the Kanizsa triangle improves the accuracy on VWM change detection tasks.

Through this chapter, my goal was to assess how illusory objects are represented in VWM. Understanding how the VWM system can be enhanced to overcome capacity limitations is an endeavor that will both improve the understanding of VWM and provide insight into how the working memory system interacts with a Gestalt grouping context.

## **Methods**

### **Participants**

Thirty-one subjects (M 21 years, SD 2.6, 13 men, 17 women, 1 transgender/nonbinary) participated in the experiment. Each experimental session took approximately three hours from start to finish. This time included approximately 1.5 hours of preparation, task practice, and clean up, and another 1.5 hours for the experimental tasks. Participants were compensated \$15 per hour. Participants gave informed written consent. The protocol was approved by The Ohio State University IRB. Subjects had normal or corrected-to-normal visual acuity and they self-reported normal color vision. Eleven participants were excluded from analysis due to greater than 25% of their trials being rejected due to eyeblinks during stimuli presentation, excessive eye movements, or falling asleep during the EEG study. One participant was excluded because of having a negative value for their VWM capacity estimate  $K$ .

### **Materials**

Subjects conducted the experiment on a 21-inch BenQ XL2420T monitor with a refresh rate of 120 hz. Subjects were seated approximately 65 cm from the monitor. Head position was not fixed.

### **Stimuli and Procedure**

#### *Preliminary Task*

Prior to the EEG task, VWM capacity was estimated using a color change detection task (Luck & Vogel, 1997; Fukuda & Vogel, 2009; Vogel et al., 2001) (Figure 3.3) that consisted of 2 blocks of 60 trials. The task was verbally and textually explained

to participants. 10 practice trials in the presence of a researcher were completed prior to beginning. Trials began with a fixation cross ( $0.53^\circ \times 0.53^\circ$ ) presented for 1000 ms. Memory arrays containing 4 or 8 colored squares were next displayed for 150 ms. Following the memory array, a retention interval of a blank screen lasted for 900 ms. The test array composed of a single test square was then shown to subjects. Subjects made an un-speeded response indicating if the color of the test square was the same or different as it was in the memory array. Participants pressed the Z or /

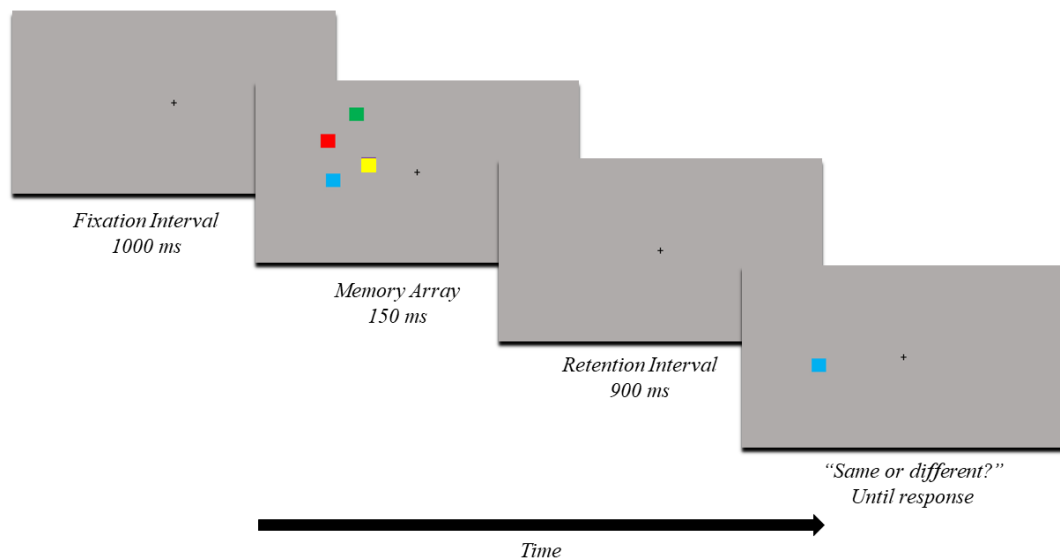


Figure 3:3. Color change detection task overview.

key on the keyboard (for same or different responses). Response keys were counterbalanced across the participants.

The stimuli were pseudo-randomly placed within a  $14.61^\circ \times 14.61^\circ$  degrees of visual angle region on the screen on a gray background. Square colors were selected from

a set of nine colors (green (0, 255, 0), blue (0, 0, 255), red (255, 0, 0), yellow (255, 255, 0), cyan (0, 255, 255), magenta (255, 0, 255), white (255, 255, 255), orange (255, 128, 0) black (0, 0, 0),) with the condition that no two squares in an array were the same color.

A value for  $K$  (estimated working memory capacity) was calculated based on participant accuracy on the change detection task.  $K$  was calculated using the equation  $K = S \times (H - F)$ . In this equation,  $K$  is memory capacity,  $S$  is the size of the memory array,  $H$  is the observed hit rate, and  $F$  is the false alarm rate (Cowan, 2001; Pashler, 1988). A  $K$  value was calculated for each set size and averaged together to estimate each participant's  $K$ .

### *Experimental Task*

Pacman stimuli subtended  $0.75^\circ$  of visual angle. The Kanizsa triangle illusory object formed by the pac-man inducers was approximately  $3.44^\circ$  of visual angle. All stimuli were positioned randomly within a  $15.07^\circ \times 15.07^\circ$  region and displayed on a black (0, 0, 0) background. The color of the pacmen were selected randomly from a pool of eight colors with the constraint that no two items in the array were the same color (dark green (0 104 76), red (255 0 0), yellow (255 255 0), blue (0 0 255), pink (255 0 255), green (0 255 0), cyan (0 255 255), brown (102 51 0)).

Participants were given verbal and textual instructions and completed 16 practice trials. The entire experiment consisted of 18 blocks of 56 trials each, for a total of 1008 trials. A trial began with a fixation cross ( $0.44^\circ \times 0.44^\circ$ ) shown for 200 ms. Participants were then shown an arrow ( $1.85^\circ \times 0.44^\circ$ ) for 400 ms that cued them to attend to either the right or left side of the screen. After a stimulus onset asynchrony of either 300, 400,

or 500 ms, subjects were presented with the memory array of colored pacman figures (circles with notches cut out) for 200 ms. Participants were instructed to remember the orientation of the notches (i.e. which direction the open notch was pointing). Following a 900 ms retention interval, a test item appeared on screen and subjects made an un-speeded response indicating if the test item notch was pointing in the same or a different direction as shown in the memory array (Allon et al., 2019). There was always at a minimum a 40 degree difference between the test item orientation and the memory array orientation on different trials.

There were four conditions in the experiment: single item (SO), three items that formed a Kanizsa triangle (3K), three items grouped by proximity (3G), and three ungrouped items (3U). These conditions were inter-mixed within each block and the same number of trials per condition were shown each block.

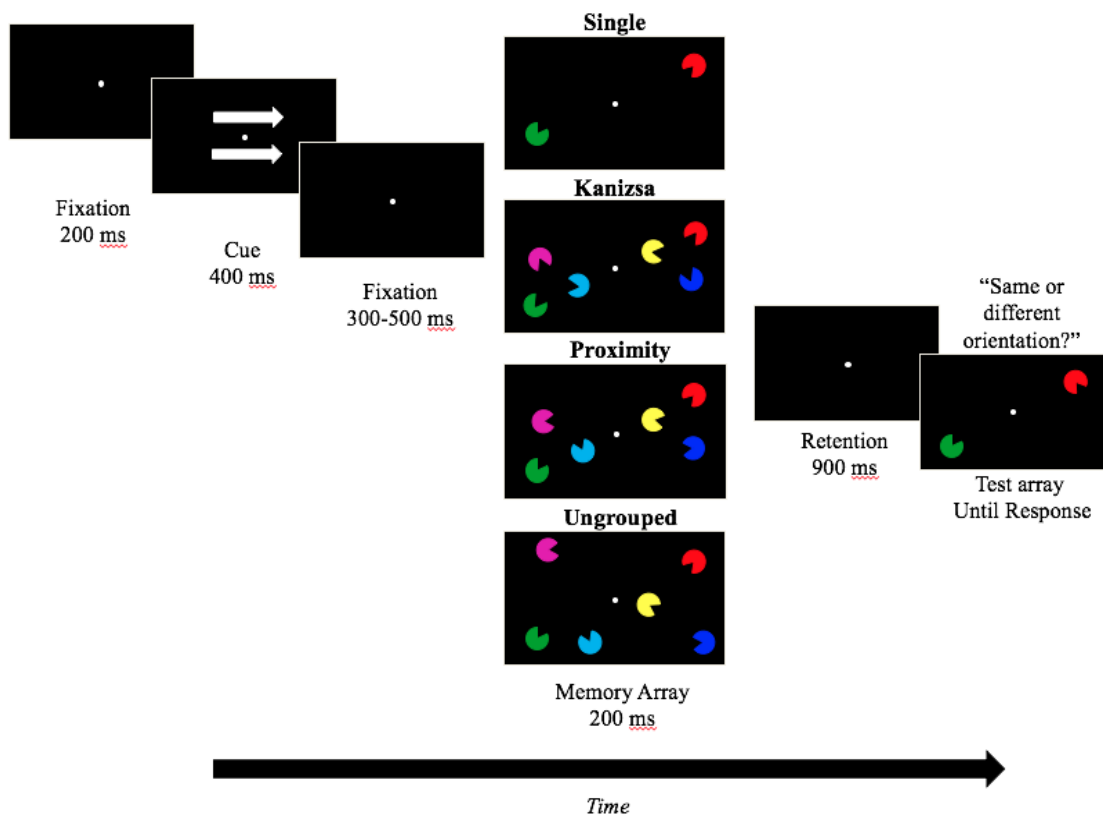


Figure 3:4. Experimental trial overview.

### *Electroencephalography recordings*

The EEG experiment was conducted in an electromagnetically shielded room with a BrainVision EEG recording system (BrainProducts GmbH, Munich, Germany). Data were recorded from 32 scalp electrodes at predominantly occipital and parietal sites due to the CDA being most pronounced in these regions: AF3, AF4, F3, F4, F7, F8, Fp1, Fp2, Fz, FCz, T7, T8, C3, C4, Cz, P1, P2, P3, P4, P5, P6, P7, P8, Pz, POz, O1, O2, Oz, PO3, PO4, PO7, PO8. The horizontal electrooculogram (EOG) was recorded from face electrodes that were placed approximately 1 cm to the left and right of the external canthi. These detected horizontal eye movements. The vertical EOG was recorded from

electrodes below the left eye, and above and below the right eye to detect vertical eye movements. This included recording when eye blinks occurred.

Signal processing and analysis was performed using the EEGLAB Toolbox (Delorme & Makeig, 2004), ERPLAB Toolbox (Lopez-Caleron & Luck, 2014), and MATLAB (Mathworks). First, electrodes were referenced offline to the average of the left and right mastoid electrodes. The continuous data was segmented into epochs from -200 to +1,100 ms relative to onset of the memory array for CDA component analysis. The data was normalized to a 200 ms window prior to the onset of the memory array. Peak-to-peak analysis using a sliding window of 200ms and a step of 100ms allowed for artifact detection and removal. Rejection thresholds were determined separately for each subject. These thresholds were either 100 or 120 mV at the analyzed electrodes (P7, P8, PO8, PO3, and PO4) and 75 or 85 mV at the EOG electrodes. This data cleaning procedure resulted in a mean rejection rate of 10.41%. If a subject's rejection rate was greater than 25%, they were excluded from further analysis. The data was then averaged and low-pass filtered with a noncausal Butterworth filter of (12 dB/oct) and a half-amplitude cutoff of 30 Hz. Any trial in which the subject was incorrect or had a reaction time less than 100 ms or greater than 3000 ms were excluded from analysis.

#### *CDA Analysis*

The CDA was calculated as the difference in mean amplitude between the ipsilateral and contralateral waveforms for electrodes PO7/PO8, P7/P8, and PO3/PO4. The CDA was calculated during the period ranging from 400-1000 ms after the memory



array. To control for multiple comparisons, a Holm-Bonferroni correction (Holm, 1979) was used. P-values denoted by  $p_{HB}$ .

### *Behavioral Analysis of EEG Task*

No trials were excluded due to no subjects meeting exclusion criteria (trials with an RT less than 100 ms or greater than 3000 ms ). Data was analyzed with MATLAB and SPSS. Multiple comparisons p-values were controlled using a Holm-Bonferroni correction (Holm, 1979), P-values denoted by  $p_{HB}$ .

## **Results**

### *Behavioral Results*

#### *Accuracy*

A repeated-measures analysis of variance (ANOVA) with condition (SO, 3K, 3G, 3U) as the within-subject independent variable found a significant difference in accuracy between the conditions ( $F(1.751, 31.513) = 121.519, p_{HB} < .001$ ; Greenhouse-Geisser corrected). Accuracy was significantly better for the SO condition versus the 3K ( $t(18) = 7.482, p_{HB} < .001$ ), 3G ( $t(18) = 20.154, p_{HB} < .001$ ), and 3U ( $t(18) = 26.607, p_{HB} < .001$ ) conditions. Accuracy for the 3K condition was significantly better than for the 3U ( $t(18) = 5.121, p_{HB} < .001$ ) and the 3G ( $t(18) = 6.185, p_{HB} < .001$ ) conditions. There were no other significant accuracy differences. The above findings corroborate the results of Allon et al., 2019; the Kanizsa triangle benefits VWM performance.

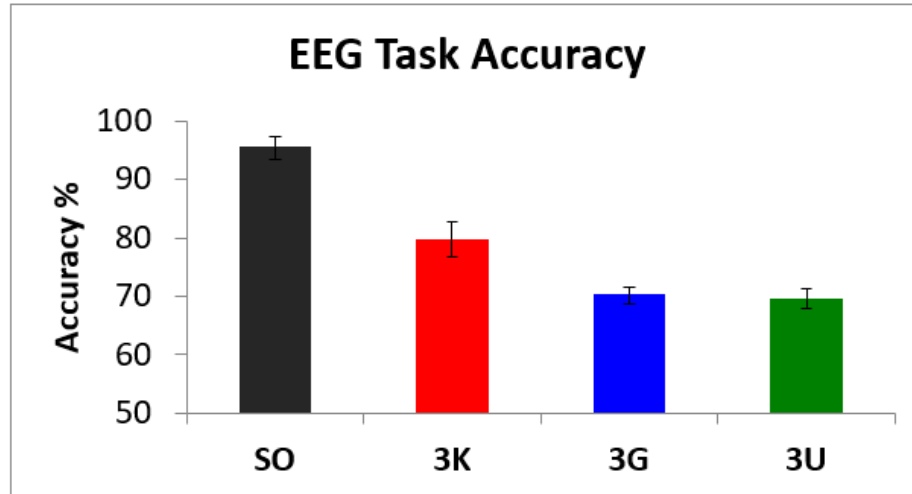


Figure 3:5. Accuracy across conditions.

Accuracy on the EEG task is shown. Data details in table 1. Error bars depict the within subject 95% confidence interval calculated using the Cousineau method (Cousineau, 2005) with a Morey correction (Morey, 2008)

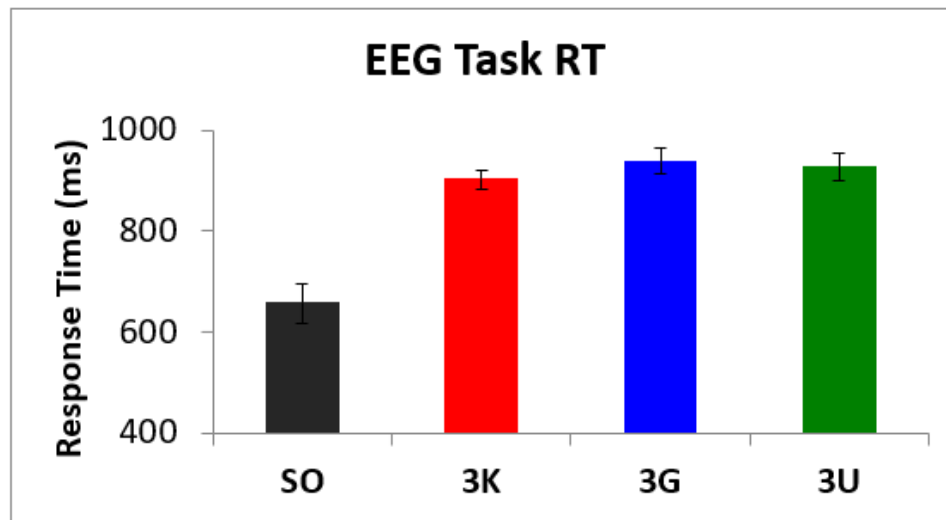


Figure 3:6. Response time across conditions

Data details in Table 1. Error bars depict the within subject 95% confidence interval calculated using the Cousineau method (Cousineau, 2005) with a Morey correction (Morey, 2008).

Accuracy and response times across conditions				
Condition	SO	3K	3G	3U
Accuracy (mean, SD)	95.4%, 3.9%	79.7%, 10.5%	69.8%, 7.4%	69.3%, 6.1%
Response time (mean, SD)	656.3ms, 160.8ms	902.1ms, 211.5ms	938.6ms, 235.8ms	928.0ms, 240.8ms

Table 3:1: Detailed accuracy and response time averages and standard deviations.

This table depicts the information from Figures 3.5 and 3.6.

### *Reaction time*

A repeated-measures ANOVA with condition (SO, 3K, 3G, 3U) as the within-subject independent variable found a significant difference in RT between conditions ( $F(1.587, 28.564) = 83.22, p = < .001$ ; Greenhouse-Geisser corrected). Subjects were significantly faster for the SO condition versus the 3G ( $t(18) = -10.256, p_{HB} = < .001$ ), 3K ( $t(18) = -13.281, p_{HB} = < .001$ ), and 3U ( $t(18) = -9.600, p_{HB} = < .001$ ) conditions. No other significant differences in RT were found.

### *VWM Capacity Estimate (K): Change-detection task*

The average VWM capacity was 2.37 (SD = 0.73). This ranged from 0.53 to 3.16. This is a rather low average VWM capacity compared to other studies (Luck & Vogel, 2013).

### *K and Accuracy & Response Time correlations*

Due to individual differences in VWM capacity influencing a wide variety of high aptitude measures, I wanted to determine if an individual's capacity impacted behavioral performance. K for each subject was correlated with accuracy (Figure 3.7) and RT (Figure 3.8). I found that subjects with a higher VWM capacity were significantly

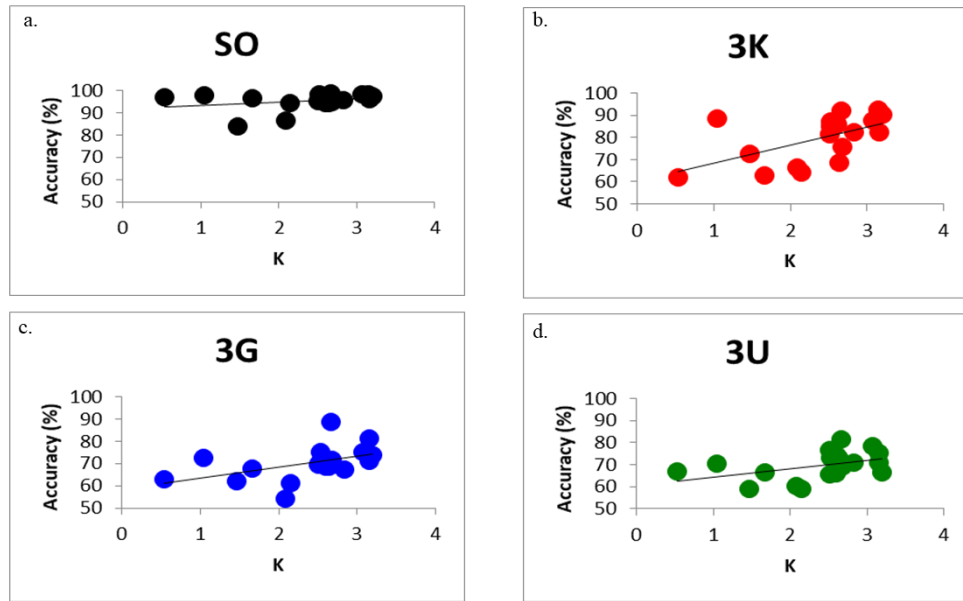


Figure 3:7. Scatter plots of VWM capacity (K) correlated with accuracy by condition.

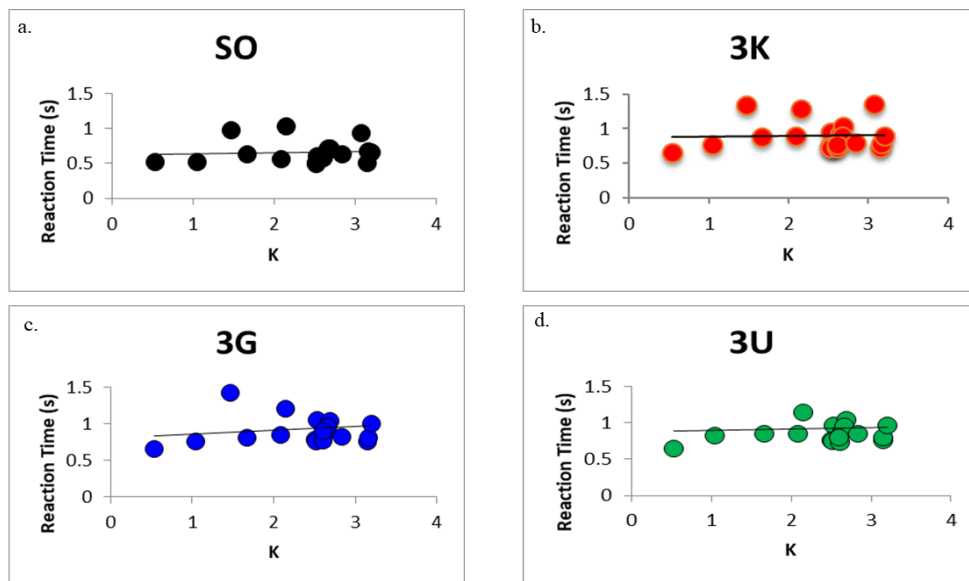


Figure 3:8. Scatter plots of VWM capacity (K) correlated with response time by condition.

Correlations between K & response time and K & accuracy				
Condition	SO	3K	3G	3U
Accuracy r [95% CI]	.29 [-.13 .78]	.57 [.09 .86] *	.44 [.2 .73] #	.38 [.09 .65]
Response time r [95% CI]	.05 [-.53 .52]	.05 [-.55 .48]	.17 [-.47 .58]	.07 [-.63 .54]
* = $p < .05$ , # = $p < .1$ (Holm-Bonferroni corrected)				

Table 3:2. Correlations between K and accuracy & response time.

This table depicts the information from Figures 3.7 and 3.8.

more accurate in the Kanizsa condition,  $r(17) = .57$ ,  $p_{HB} = .010$ . Those with higher VWM capacities were also marginally more accurate on the 3 grouped object condition,  $r(17) = .44$ ,  $p_{HB} = .057$ . There were no other significant correlations. See Table 2 for all correlations.

#### *CDA Results*

CDA waveforms are shown in Figure 3.9. A repeated measures ANOVA with condition (SO, 3K, 3G, 3U) as the within-subject variables was conducted. A significant difference in CDA amplitude was found between conditions ( $F(3, 54) = 13.034$ ,  $p < .001$ ). The CDA amplitude for the SO waveform was significantly lower than for the 3K ( $t(18) = 5.725$ ,  $p_{HB} < .001$ ),

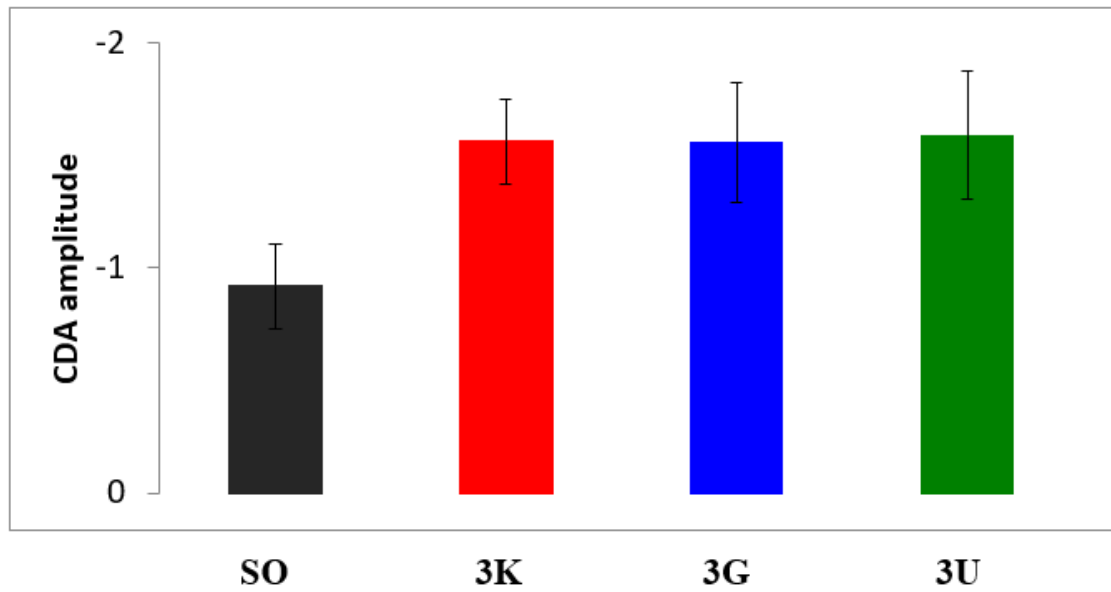
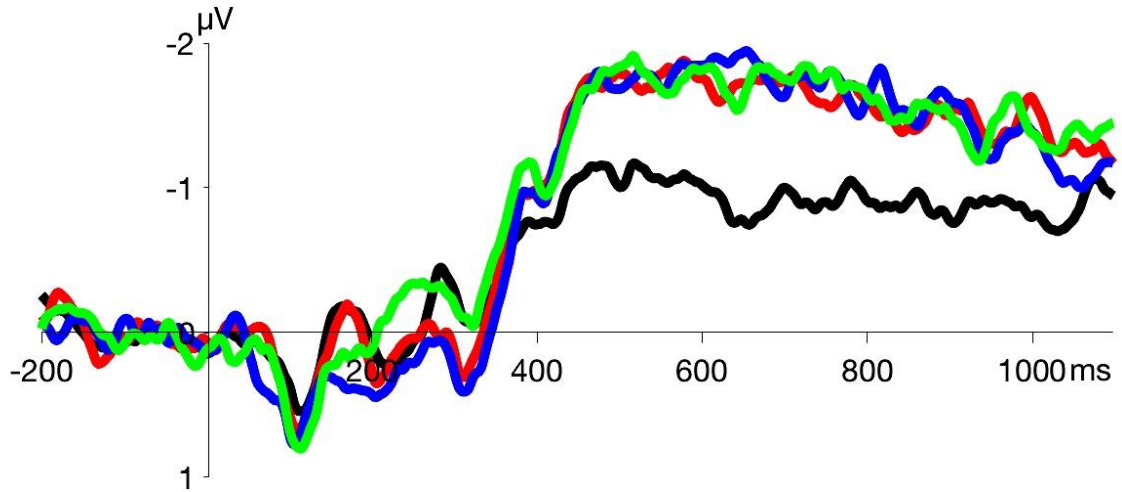


Figure 3:9. Contralateral delay activity results.

Top; CDA waveform. Bottom; bar chart depicting the average CDA across the analysis window (400-1000 ms post-memory array). CDA averaged across electrodes P7/P8, PO3/PO4, and PO7/PO8.

Correlations between K & CDA amplitude for each condition				
Condition	<b>SO</b>	<b>3K</b>	<b>3G</b>	<b>3U</b>
Accuracy	-.18 [-.48 .23]	.57 [.09 .86]	.44 [.2 .73]	.38 [.09 .65]
r [95% CI]				
* = $p < .05$ , # = $p < .1$ uncorrected				

Table 3:3. Correlations between K and CDA amplitude.

3U ( $t(18) = 4.766, p_{HB} < .001$ ), and 3G ( $t(18) = 4.537, p_{HB} = .001$ ) conditions. The Kanizsa trial did not lead to a significant reduction in CDA amplitude; no differences were found between the Kanizsa condition and the three grouped or three ungrouped conditions.

#### *Correlations between K and CDA Amplitude*

CDA was next correlated with VWM capacity to determine if capacity affects how someone encodes the pacman stimuli. K was correlated with CDA amplitude for each condition. There were no significant correlations. See table 3.3 for all correlations.

## Discussion

This study investigated how illusory objects, specifically a Kanizsa triangle, is represented in visual working memory. Prior work (e.g. Allon et al., 2019; Peterson & Berryhill, 2013; Gao et al., 2016) showed that illusory objects and Gestalt groupings could improve behavioral performance on change detection tasks, however it was unknown how a Kanizsa triangle grouping context could alter how information was encoded into VWM.

I had participants perform a change-detection task with four main conditions: single object (SO), three objects grouped to form a Kanizsa triangle (3K), three objects grouped by spatial proximity (3G), and three ungrouped objects (3U). Subjects were asked to report on orientation due to its task relevance to Kanizsa triangle. The contralateral delay activity ERP waveform was recorded while participants completed the experiment and was used to estimate VWM capacity. Results indicated that while the Kanizsa triangle resulted in a behavioral benefit, the CDA amplitude was not decreased for the Kanizsa condition. The CDA amplitude was similar to the amplitude of the other three object conditions. It appears the Kanizsa triangle is represented as three objects despite the relative strength of an illusory object compared to other Gestalt grouping cues (Kimchi et al., 2007). Thus the triangle does not appear to modulate the CDA amplitude and seems as though it is represented as three distinct objects. This reveals an interesting distinction between accuracy and CDA.

These results were somewhat surprising given previous work showing reductions in CDA amplitude due to other types of Gestalt grouping cues. Peterson et al. (2015)



found that when there were behavioral benefits due to a grouping cue, they were always associated with a reduced CDA amplitude. This was the case for the grouping principles of similarity, proximity, and uniform connectedness. Even more surprising are the results found in McCollough (2011)'s doctoral dissertation. McCollough had participants complete an orientation relevant change detection task with a Kanizsa triangle condition with nearly the same methods as the experiment presented here. McCollough found both a reduction in CDA amplitude and a behavioral benefit due to the Kanizsa triangle. Based on these results, I should have seen a reduction in CDA amplitude as well. Thus my results do not corroborate what was found in McCollough, 2011.

The main question is why I did not see a reduction in CDA amplitude due to the Kanizsa triangle? One reason might be saliency. Due to the inducers all being different colors, it is possible the illusory triangle did not 'pop out' enough. If the inducers had all been the same color, it is possible the salience of the triangle would have been greater as in McCollough (2011) resulting in its improved perception (Spehar, 2000; Spehar & Clifford, 2003). With a stronger and more salient triangle, attention may have been drawn to the triangle more leading to greater impacts on encoding. However, if saliency was the sole reason for the results, it would be expected that there would be no behavioral benefit. This was not the case as I clearly saw a significant behavioral benefit of the triangle.

Another possibility is that the triangle exerts its behavioral benefits through its interactions with other cognitive systems rather than through its representation in VWM. Subjects may engage long-term memory or utilize verbal rehearsal to remember the inducer orientations. We did not include an articulatory suppression task, thus rehearsal

could be a possibility. However, if additional processing were occurring, I would expect to see longer reaction times for the Kanizsa condition than were found since more processing should take more time. Previous work has shown that change detection paradigms are minimally affected by long-term memory and verbal working memory especially when the retention interval and time to encode the memory array are of a short duration (Cowan, 2001), as was the case in this study. Because there were not increased reaction times for the Kanizsa condition compared to the three objects conditions, additional processing seems less likely.

Based on the results, it seems most likely that participants needed more time to utilize the triangle. The memory array was displayed to subjects for 200ms which is a common encoding time used in change detection tasks. However, when subjects were debriefed as to the purpose of the experiment, several voluntarily reported that while they noticed the triangle during the experiment, the trial moved on before they could even act upon what they saw. These comments made me question whether the encoding time was long enough. If subjects did not have enough time to both have their attention directed to the triangle and utilize the triangle to make the encoding process more efficient, this could explain why there was not a reduction in CDA amplitude. More time may be required for the triangle to fully influence visual information processing. Thus, it is possible that 200 ms was not enough time for participants to become attentionally aware of the triangle and use it to implement an attentional encoding strategy such as chunking.

The encoding strategy employed by subjects during change detection tasks has previously been shown to greatly influence performance, CDA amplitude, and VWM

capacity. Bengson & Luck (2016) conducted a study in which subjects were instructed to use different strategies during a change detection task. Some subjects were told to “just do your best”, others were told to remember the entire display, and another group was told to only focus on a subset of the items on screen. Performance was best for the group told to remember everything despite the displays containing a number of items well above their VWM capacity. Linke and colleagues (2011) found that subjects with lower IQs or lower VWM capacities tended to adopt non-optimal attentional strategies during encoding which led to poor performance. However when these same subjects were provided a more helpful strategy to use during encoding, their performance improved. Lastly, Rabbitt, et al., 2017 found that the CDA amplitude could be modulated depending on whether or not participants were instructed to group items to form a constellation or to try to encode individual items. Employing a grouping strategy improved performance. These examples exemplify how influential the encoding strategy can be on VWM.

In the presented study, a conscious encoding strategy could only exert an effect if the triangle was attentionally selected. However, time limits during the trial were not helping this process. It takes at least 150 ms since stimulus appearance to differentiate between illusory objects and non-illusory object stimuli (Conci et al., 2019). It also takes at least 220 ms for a stimulus driven attention signal to arise ((Marini & Marzi, 2016). Thus it is improbable that 200ms is enough time for subjects to adopt a successful encoding strategy.

Additionally, the time needed to encode items into VWM increases as a function of item complexity. While a single featured stimulus (e.g. a colored square) can take only

50 ms to encode (Vogel et al., 2006), more complex stimuli like faces can take up to 500 ms to encode (Curby & Gauthier, 2007). The Kanizsa triangle complexity appears in between a single feature item and a face, thus the triangle probably takes between 200 and 500 ms to encode successfully. Thus, because of the short memory array duration, subjects may have only had time to store the triangle plus as many inducers as possible until reaching VWMC. This is an inefficient encoding strategy since it is not utilizing the full benefit of the triangle. This explanation could explain the behavioral benefits without the reduced CDA amplitude. Lastly, McCollough (2011) found that a reduction in CDA amplitude for their Kanizsa condition occurred when the memory array was displayed longer on screen (500 ms). This result further supports that my study did not provide participants with adequate encoding time. Future work will determine what happens when subjects are given more time to view the memory array. More time may allow more efficient encoding during the Kanizsa trial.

Additionally, there are potentially some interesting individual differences in the results that could be influenced by a longer encoding time. The results showed that higher VWM capacity individuals had higher accuracies for the Kanizsa condition. This was the case despite the short 200 ms encoding window. Even with the short time, high VWM capacity participants derived a greater benefit from the triangle than lower capacity individuals. This behavioral benefit occurred despite the lack of a reduced CDA amplitude. A greater encoding time may benefit all subjects. Those with higher capacities may exhibit a reduced CDA amplitude and greater performance help. Those with lower capacities may be able to derive greater behavioral benefits than they could with a shorter

encoding time. Thus a longer encoding time could further help explore individual differences in illusory grouping contexts.

This next experiment with increased encoding times was set to begin, however the research shutdown due to COVID prevented me from moving forward. Thus, at the moment, this story is incomplete and a more precise understanding of how an illusory object context modulates VWMC is left to speculation. However, the plan is to eventually have this experiment completed in the future.

In summary, while the results may imply that the Kanizsa triangle is represented as three objects in VWM, this may not be the complete story. The behavioral benefits that resulted from the presence of the Kanizsa triangle suggest there must be some effect on VWM occurring. Additionally, previous research has found reductions in CDA amplitude when Gestalt grouping cues are employed, further suggesting an effect on VWM is likely. It is possible the experimental methods prevented the full impact of the Kanizsa triangle from being manifested in the CDA. Future work is needed to fully parse out how illusory objects exert their behavioral benefits through possible VWMC modulation and the impact that individual differences may have in this process. However, it can be seen that a grouping context inducing an illusory object does indeed affect how the task is processed and the subsequent behavior.

**Chapter 4. How successful is connectome-based predictive modeling for studying individual differences?**

## Introduction

The brain is a complex network of regions that are continuously communicating with each other. Studying these patterns of brain activity have provided insights into underlying neural processes such as attention (Martin-Signes et al., 2019), executive control (Elton & Gao, 2014), and medical conditions like Alzheimer's (Stam et al., 2007), attention deficit hyperactivity disorder (Tian et al., 2006), and traumatic brain injury (Bonnelle et al., 2011; Castellanos et al., 2013). Such studies have also provided insight into brain development (Hansen et al., 2020; Howell et al., 2020; Li et al., 2021). Classically, functional connectivity studies focused on patterns of brain activity that were common across people, or that differed between groups of individuals. However, there is a great deal of individual variability in brain connectomes, even within canonical networks like the dorsal attention network (Osher et al., 2019) or default mode network (Zhang et al., 2019). Such functional connectivity “fingerprints” provide a way of studying these unique brain activity patterns between individuals.

Models that are built using these “fingerprints” have allowed for the characterization and prediction of an individual's unique brain-behavior relationship (Dubois et al., 2018; Finn et al., 2015, Saygin et al., 2012). An increasingly used method to build one of these models is connectome-based predictive modeling (CPM) (Finn et al., 2015; Shen et al., 2017). In this method, relevant functional connections identified from whole brain functional connectivity data are used to predict a phenotypic measure that is unique to an individual. This has successfully been done for a wide range of behavioral and trait measures from cognitive and attention function (Fountain-Zaragoza

et al., 2019; Rosenberg et al., 2016) to predicting neuroticism and extraversion (Hsu et al., 2018) and general fluid intelligence (Finn et al., 2015; Gao et al., 2019; Greene et al., 2018). The method has also been used clinically to predict symptom improvement in depressed patients (Ju et al., 2020). By building and comparing models that can predict different behaviors, brain networks that support unique functions or networks that support overlapping functions can be identified. Thus, CPM is emerging as an impressive way to analyze brain-behavior relationships.

The type of fMRI data that has primarily been used in CPM and functional connectivity analyses in general is resting state (Biswal et al., 1995; Power et al., 2014). Resting state is popular for several reasons. This type of data is easier to collect than task-based data for a multitude of participant populations (Fox, 2009; Greicius, 2008; Shehzad et al., 2009) and it is easy to collect a few minutes of resting state data during an experiment. Resting state scans have been thought to offer special insight into the intrinsic connectivity of the brain. Additionally, resting state networks correspond to networks found while a person is performing a task (Smith et al., 2009) and that intrinsic connectivity helps to shape the task-based connectivity profile (Cole et al., 2014, 2016; Gratton et al, 2018; Krienen et al., 2014; Tavor et al., 2016), thus this indicates resting state can be used in place of a more resource intensive task. Lastly, resting state data can help to minimize any potential bias caused by doing a task in the scanner related to the dependent variable of interest (Buckner et al., 2013). Thus, overall, it would seem that resting state is the ideal imaging data type for building brain-behavior models.



As mentioned in the Chapter 1, my initial plans for beginning to understand individual differences in task context processing using CPM did not come to fruition. My experiment involved collecting 30 minutes of fMRI resting state data, and using that data to build a CPM that could predict individual differences in attentional control in response to a changing task context. I did run 18 participants out of my 50 subjects sample size before data collection was ceased. After analyzing this partially completed dataset, I was largely unsuccessful at predicting my dependent measures of interest from the functional connectomes using CPM. This was surprising given the great success of resting state CPM seen in the literature and the sometimes small sample sizes used in analyses. These unexpected findings and the COVID situation afforded me the opportunity to instead critically examine the success of CPM, the best type of data to use for model building, how much data is needed, the number of subjects necessary, and what types of behavioral and trait measures are able to be predicted.

These above factors were chosen due to their importance in predictive models and the attention they have received in the brain-behavior literature. For example, there has been a push in the neuroimaging community to use task-based data for predictive models instead of the classically used resting state. This shift has occurred due to several studies that have emerged suggesting resting state may not always be the best type of data to use. It has been found that task data can better highlight individual differences than resting state data (Finn et al., 2017, Vanderwal et al., 2017, Yoo et al., 2018) due to the task causing brain changes in connectivity patterns unique to individuals. Additionally, phenotypic predictions are better when the models are constructed using scan data in

which a task related to the predicted value was performed (Greene et al., 2018; Rosenberg et al., 2016). These results indicate that functional connectivity is not static; rather it is changing over time (Cohen, 2018). When task data is combined with rest data, predictive models improve and intrinsic connectivity become more reliable than with rest alone (Elliott et al., 2018; Gao et al., 2019) (although Yoo et al., 2018 did not find this). Why is task, whether alone or combined with resting state better than resting state alone? This question was asked by Greene and colleagues (2020). In their work, it was found that tasks induced changes in functional connectivity that led to successful predictions of behavior. Importantly these successful predictions were independent of brain activation due to the task itself. Further, it was found that the best task for predictions was one that successfully synchronized activity across subjects enough to help eliminate noise from the BOLD signal, which led to amplified individual differences. Too much synchronization though negated the benefit of the task and eliminated individual differences (Greene et al., 2020). Thus, tasks have a relevant effect on phenotype and can improve model success. Why does task synchronization lead to better predictions than rest? A main reason is that resting state is unable to be controlled by the experimenter. While subjects are often told to not think about anything in particular and to fixate on a dot on the screen, subjects will inevitably begin thinking about something. Importantly, they will not all be thinking about the same thing, which is problematic and increases inter-subject variability (van den Heuvel & Hulshoff Pol, 2010). In contrast, when people are all completing the same task, they are likely engaging similar mental processes in a time-locked way (Hasson et al., 2004; Buckner et al., 2013). This synchronization in

mental processes can allow individual differences to become more apparent. This synchronization can explain why movie watching provides better data than rest for CPM models (Finn & Bandettini, 2021).

Sample size and the amount of data have also received attention in the functional connectivity literature (Finn et al., 2015; Laumann et al., 2015; Noble et al., 2017; Pannunzi et al., 2017; Yoo et al., 2018). Elliott et al. (2018) assessed whether scan duration had an effect on the reliability of intrinsic functional connectivity estimates. As could be expected, as the amount of both resting state data and general functional connectivity (combined rest and task) data increased, estimates of reliability increased from a mean ICC of 0.28 with 5 minutes of data to a mean ICC 0.54 and 0.58 for resting state and general functional connectivity respectively with 40 minutes of data. Just 5-10 minutes of data showed poor reliability, which is concerning given that many studies only utilize this amount of data. Other studies (Anderson et al., 2011; Birn et al., 2013) have also shown a similar relationship between scan length and data reliability. In addition, several neuroimaging machine learning classifiers have found increased accuracy and more stable results when larger sample sizes are used (Chu et al., 2012; Kloppel et al., 2008, Nieuwenhuis et al., 2012, Cui et al., 2018).

Since the success of predictive models in terms of sample size, and data type and amount has been studied, one may assume there is no reason left to pursue this area of research. However, a critical downside to some CPM studies using HCP data is their focus on only a handful of the many measures. Fluid intelligence and working memory are the most popular to explore (Elliot et al., 2018; Gao et al., 2019; Greene et al., 2018,

2020; Avery et al., 2020) with some studies looking at sustained attention (but see Li et al. (2019) that predicted 58 measures and Lin et al. (2020) that looked at 29 measures. While these frequently used measures allow for comparison across studies and reassurance that a constructed CPM will be successful, there are limitations. For example, the restricted number of measures prevents one from assessing generalizability, especially to measures that are not cognitive in nature. Given that the type of scan used seems critical to the eventual success of a predictive model, it seems unlikely that only one type of scan would be best for all types of dependent variables. It is also possible that some phenotypes are more or less distinct functionally, hence fewer or more subjects, or different types of data may be needed to have a successful model. This lack of generalizability would be unfortunate given the extensive work researchers have done identifying methods that can improve CPM (Elliot et al., 2018; Finn et al., 2015; Gao et al., 2019; Greene et al., 2018).

Thus, in this chapter I will be presenting results from an exploration into the success of CPM across a variety of phenotypic measures along with factors that can influence that success. This will be done using the large data set available from the Human Connectome Project (HCP) (van Essen et al., 2013). I tested the ability of CPM to predict 291 HCP measures across different types of scanning conditions. These scanning conditions include each of the two resting state and seven task-based fMRI scans separately, the two resting state scans aggregated, the seven task-based scans aggregated, and all nine scan types aggregated. Each of these scan conditions were used to build models predicting each of the 291 HCP measures. In addition, two different scanning

data amounts (176 volumes and 1200 volumes) and 4 different sample sizes (20, 50, 100, and 232) were investigated to understand how these factors impacted CPM. Overall, the goal was to assess how many models were able to significantly predict their phenotypic measure to understand the general success rate of CPM, whether rest or task-based data was better, and whether success changed depending on the number of subjects or number of volumes included in the model.

Lastly, since I was not able to study context using CPM with my own data, I will take some preliminary steps towards this goal using the CPMs generated from the HCP data. There are several behavioral measures that may be able to provide insights into the task contexts explored in Chapters 2 and 3. These include measures of attention, executive functioning, memory, and response inhibition. Thus, at the end of this chapter, an attempt will be made to speculate how these cognitive measures can inform task context processing.

## **Methods**

### *Data set: Imaging*

The latest release of the source Human Connectome Project (HCP) Young Adult S1200 Subject data set was used (Van Essen et al., 2013). Subjects completed nine scanning sessions: 2 resting state and 7 task fMRI. Each resting state session consisted of 2 runs each. The task sessions included 2 runs each of a working memory, gambling, motor, language processing, social cognition (theory of mind), relational processing, and emotion processing task. Each pair of runs had opposite phase encoding directions (left-right and right-left). Both runs were used in analysis. See the published information on

the HCP data set for full details (Van Essen et al., 2013). See Table 4.1 for relevant imaging condition details.

The full release includes 1206 subjects, however analysis was restricted to a subset of this data. Analysis was restricted to subjects that had completed all nine fMRI conditions and that had a complete set of phenotypic measures. Any subjects over the age of 35 were not included in the analysis. I additionally did not include any subjects that were identified to have a quality control issue by HCP. These included anatomical abnormalities, segmentation or surface errors, head coil instability, artifacts, and subjects requiring manual reclassification of ICA-FIX components. Lastly, to further minimize the effects of motion, subjects whose mean frame-to-frame displacement was greater than 0.15 mm or had a maximum frame-to-frame displacement greater than 0.1mm (Greene et al., 2018; Gao et al., 2019) were excluded from analysis. This resulted in a total sample size of  $n = 232$  (ages 22-35).

*Data set: Phenotypic measures*

The phenotypic measures from the S1200 HCP data release were utilized. Analysis was undertaken on both the open access and restricted access datasets. These datasets include a variety of behavioral and demographic measures including age, height, substance use, fluid intelligence, episodic memory, and executive functioning. Combined, the datasets contain 496 measures. However, due to some measures being the same for all participants, less than 10 subjects having differing responses, or a small variability of responses ( $< 3$ ), some of the phenotypic measures were excluded. This resulted in a total

of 291 phenotypic measures that were included in analyses. See Appendix A for a complete list of measures.

Measures to consider that may provide some insight into the modulation of task performance by context include an n-back task (working memory) the Short Penn Continuous Performance Test (sustained attention), Picture Sequence Memory (episodic memory), and the Flanker task (executive function). These measures will be discussed further as a beginning step for using CPM to study factors that can influence context utilization.

### *fMRI processing*

Acquired data was already preprocessed using The Human Connectome Project's Minimal Preprocessing Pipeline (Glasser et al., 2013). Briefly, this pipeline includes artifact removal, motion correction, EPI distortion correction, and registration to standard volume space. Further preprocessing was applied to the data using FMRIB's software library (FSL) (Smith et al., 2004). This additional preprocessing included the removal of linear components related to 12 motion parameters (6 motion parameters and their temporal derivatives), and regression of the mean signal from white matter and cerebrospinal fluid. Regression of the mean global signal was also performed because while controversial (Liu et al., 2017), it has been shown to reduce the effects of physiological noise and head motion (Ciric et al., 2017; Power et al., 2014) and even improve functional connectivity-based predictions of behavior (Li et al., 2019). Lastly, the data was low-passed filtered through temporal smoothing with a Gaussian filter,  $\sigma = 0.18$  hz to maintain potential high-frequency components related to the tasks

(Greene et al., 2018). These specific additional preprocessing steps were taken to best be able to compare results to previous papers assessing the use of CPM to study individual differences (Finn et al., 2015; Rosenberg et al., 2016; 2018; Greene et al., 2018; Gao et al., 2018).

#### *Whole-brain functional connectivity*

All the subsequent analyses were conducted using MATLAB (MathWorks). Brains were parcellated into 268 nodes using a whole-brain atlas which maximizes the functional similarity within each node. The atlas includes cortical, subcortical, and cerebellar regions (Shen et al., 2013). This atlas was warped from Montreal Neurological Institute (MNI) space to individual subject functional space. For some analyses (see results) only some of the acquisition volumes from each node were used to create connectivity matrices. For example, to equate the amount of scan time the scan condition with the fewest volumes - specifically, the emotion task had 176 volumes - dictated the number of volumes used from all other scan conditions. Any nodes that were not present in 3 or more subjects were excluded from analysis. The mean time course within each of the nodes was calculated and then correlated with the mean time course of all other nodes using Pearson's correlation. This resulted in a 268 X 268 symmetric matrix of edges (connection strengths) that was normalized using the Fisher transform. Matrices were generated for each RL and LR phase encoding run separately then averaged together to create a single connectivity matrix for each scan condition for each subject. These matrices were then used for predictive modeling.

#### *Network identification*



Multiple CPMs were created to predict individual subject phenotypic measures from whole brain functional connectivity. The methods used are those outlined in Shen et al., 2017. Each edge in the functional connectivity matrices was linearly correlated with the phenotype measures across all subjects, and the most highly correlated (uncorrected  $p < 0.01$ ) were selected. These significantly correlated edges were split into a positive group (edges that index higher phenotype measures) and a negative group (edges that index lower phenotype measures). For each subject the selected edge strengths for each network were summed into a single summary statistic which represents the level of functional connectivity within each set of edges. Additionally, a combined group was calculated as the difference between the positive and negative groups). The presented results consist only of the combined network to improve interpretability; however a predictive model was built for each of the positive, negative, and combined network groups.

#### *Internal validation*

To train models built with greater than 200 subjects, a 5-fold cross validation scheme was employed. The subject sample was randomly divided into 5 approximately equal sized groups. For each fold, linear regression was used to generate a first-degree polynomial that best fit the network summary statistic to the phenotype measure for 4 of the groups and then tested on the 5<sup>th</sup> left-out group. This was repeated 5 times until each group was the left-out group once. The quantification measure used to determine model success was the Spearman-rank correlation ( $\rho$ ) as utilized in previous CPM work (e.g. Rosenberg et al., 2016) due to CPM predictions often having a limited range. The  $\rho$  value

from all folds were averaged into one summary  $\rho$  value for that model. For models built using less than 200 subjects, a 2-fold (split half) approach was taken. Models were built on half of the subjects and tested on the left out half. This was repeated until both halves of subjects got left out once. This procedure was used for smaller sample sizes because 5-fold cross validation may not offer the best compromise between bias and variance (Scheinost et al., 2019). Both of these procedures were repeated 50 times with the final  $\rho$  value being the average of all the iterations (Varoquax et al., 2017). Any negative  $\rho$  value is set to zero in the presented tables because a negative correlation is indicative of a poorly performing model (Gao et al., 2018).

#### *Evaluating individual model performance*

Non-parametric permutation testing was used to assess the significance of models. Participants' phenotypic measures were randomly shuffled, and 5-fold or split-half cross validation was used to acquire the correlation between the predicted and randomly shuffled phenotypic measures. The Spearman-rank correlation from all folds were then averaged into one summary statistic for that model. This process was repeated 500 times to generate a null distribution. The results of the analyses were compared to the null distribution which allowed a p-value to be calculated. This p-value was Bonferroni corrected across each of the 291 measures and used to determine significance. Due to there being constraints in the precision of permutation testing, very low probabilities were returned as  $p = 0$ . In these cases, p-values are referred to  $p < 0.00017$  (the Bonferroni corrected p-value).

#### *Comparing model performance*

To assess whether one model outperformed another, the Wilcoxon signed rank test was conducted. This a non-parametric equivalent to a paired samples t-test and is

<b>A</b>	<b>Scan conditions</b>
	Emotion
	Gambling
	Language
	Relational
	Motor
	Social
	Working memory
	Rest1
	Rest2
	All Rest
	All Task
	All Scans

especially useful for data, like from predictive models, that is not always normally distributed. The distributions of  $\rho$  values obtained during analysis were used in the statistical analysis.

*CPM categories*

CPMs were constructed using several combinations of scan conditions, data amounts, and subject numbers

<b>B</b>	<b>Data conditions</b>	<b>Sample size</b>	<b>Volumes/run</b>	<b>Scan conditions</b>
	1200_232	232	1200	All
	176_232	232	176	All
	1200_20	20	1200	All
	1200_50	50	1200	All
	1200_100	100	1200	All

Table 4:1. Scanning and condition information.

A) lists the 12 possible scan conditions. These include the seven HCP task-based scans in blue, the two resting state scans in red, and the aggregated scan conditions that I produced in black. B) describes the sample size and scan length manipulations. Four sample sizes were assessed 20, 50, 100, and 232. For each of these, CPMs were constructed with 1200 volumes/ run from all of the scan conditions in A. The last set of CPMs was constructed using the first 176 volumes from all scan conditions in A and 232 subjects.

(Table 4.1). First, CPMs were constructed using each 9 of the HCP scanning conditions individually. During each of these 9 scans, subjects were doing something different during the scan. The 7 task-based scans had subjects perform a task while the 2 resting

state scans had subjects stare at a dot on the screen. One set of analyses with these 9 scan conditions only included the first 176 volumes of the scan (Finn et al., 2017). This was done in order to equate the amount of scan time across the conditions since scan length varied from 176 volumes per run in the emotion scan to 1200 volumes per run in the resting state scans. The second set of analyses was conducted using the number of volumes in the resting state scans. For the other scanning conditions with fewer volumes, all volumes available were used, then volumes were randomly selected until the total number reached 1200. This allowed me to determine how well the models performed with a maximum amount of data. A similar method was used by Elliott et al., (2018).

Next, CPMs were constructed using varying numbers of subjects (20, 50, 100, and 232). Subjects were added iteratively, e.g. we selected 20 subjects, then randomly selected 30 more to get to 50 subjects and so on. This ensured that the same subjects were being included during each step up in number.

Lastly, models were built using data aggregated across all scanning conditions (task and rest), a model that combined all seven task conditions, and a model that combined all two rest conditions. These were based off of the general functional connectivity method (GFC) from Elliott et al. (2018). These were constructed by averaging together the connectivity matrices generated from each individual scan condition. Since all the connectivity matrices were produced using data containing the same number of volumes, averaging should produce similar results to concatenating the time courses from each condition (Elliott et al., 2018). This resulted in 12 total scan

conditions (Emotion, Working memory, Relational, Social, Motor, Gambling, Language, Rest 1, Rest 2, All-rest, All-task, and All-scans).

## **Results**

3,492 CPMs were generated for each set of 12 scan conditions. Multiplying this by the number of types of data CPMs were built from resulted in a grand total of 17,460 CPMs. To begin delving into all the results, I will start with the general overall success rate of CPM, continue into discussing sample size and scan length, then transition into CPM performance when predicting individual metrics. See appendix B for tables listing complete results.

### *How successful is CPM?*

The first question was determining, in general, how successful is CPM at predicting a phenotype of interest? “Success” was determined by calculating the percentage of models that had a  $p$  value with a significant  $p$ -value below a Bonferroni corrected threshold; indicating successful prediction of the metric of interest. For this first general success category, success was calculated across all scan conditions for the models constructed using 1200 volumes and 232 subjects. The overall percentage of CPMs that were significantly performing was 18.09%. Thus 18.09% of all the models built using 1200 volumes and 232 subjects were successfully able to predict the phenotypic metric. This percentage of successful models though varied depending on data category and scan condition.

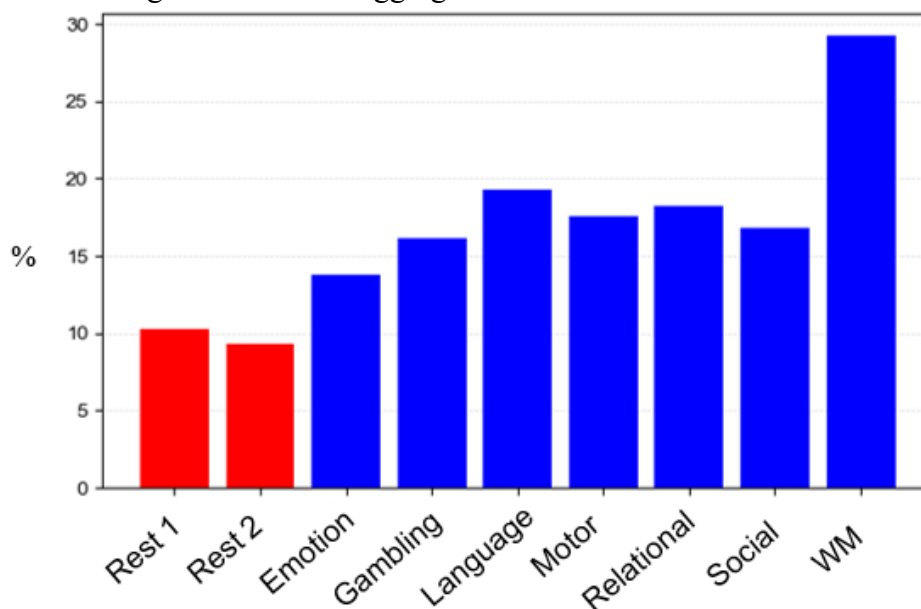
### *Task vs. resting state data*

The next question I sought to address was how task-based and resting state scans compared in terms of prediction success (Figure 4.1a). Continuing to focus on the models built using 1200 volumes and 232 subjects, it can be seen that overall, task produces a higher percentage of successful models than does rest. The rest 1 and rest 2 scan models successfully predicted the measure of interest 10.31% and 9.28% of the time respectively. Even the lowest performing task-based model (emotion) performed better than the rest. The working memory condition performed better than any other scan condition by far at 29.21% of models being successfully predictive.

#### *Aggregating scanning conditions*

GFC was used to aggregate data across different scan conditions (Elliott et al., 2019) to leverage an increased amount of data and types of data. Thus, I sought to determine if aggregating task data, rest data, and both task and rest data into a GFC matrix improved prediction above each scan condition alone. These GFC aggregations were conducted with the data with 1200 (Figure 4.2a) and 176 volumes (Figure 4.2b) and 232 subjects. For the 1200 volumes data condition, aggregating both resting state scans did not improve overall model success compared to the individual rest scans (10.31% for rest 1, 9.28% for rest 2, and 9.28% for the All-rest condition). In contrast, aggregating all task scans, and all of task and resting state scans improved model performance well above the worst

a Percentage of successful aggregated data models: 1200 volumes



b Percentage of successful aggregated data models: 176 volumes

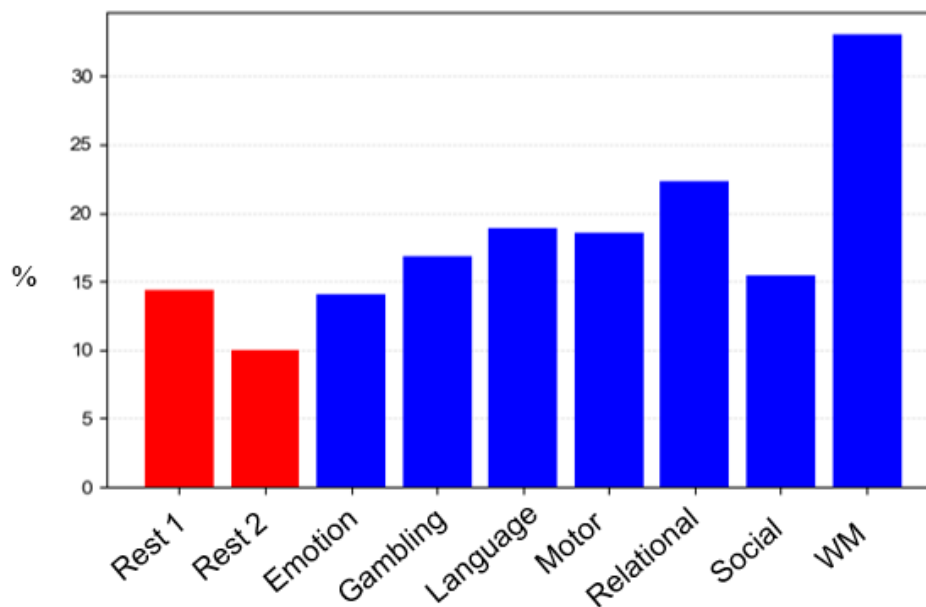


Figure 4:1. Percentage of successful models across scan conditions.

Red bars are resting state scans, and blue bars are task scans. a) Shows the results from data where 1200 volumes/run are used. b) Depicts results when the first 176 volumes/run are used.

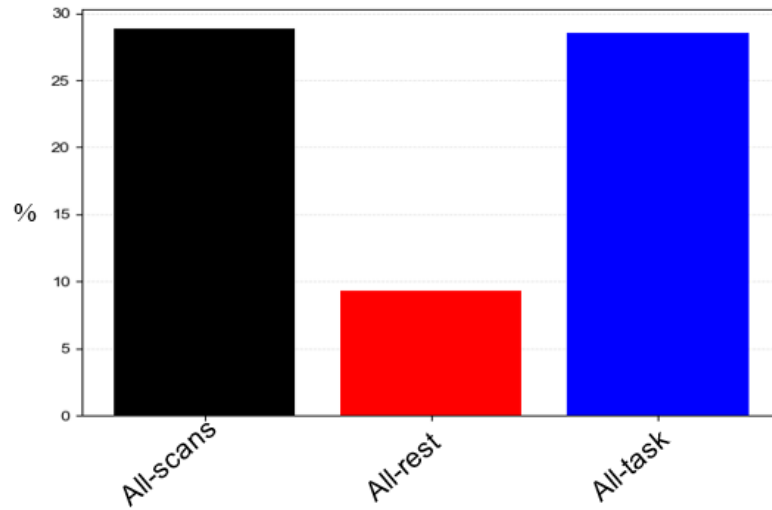
performing single scan condition. However, the All-task (28.52%) and All-scans (28.87%) conditions were not any better than the single scan condition of working memory (29.21%). In general, the All-scans condition led to the highest percentage of successful model predictions but adding the resting state data only improved it slightly above the All-task condition. This pattern of results was similar for the aggregated models built using the first 176 frames per volume from each scan condition (figure 4.2b). Something to note is that the aggregated resting state condition contains less data (4800 volumes) than the All-task (21,600) and All-scan (26,400) conditions. This may contribute somewhat to why, despite the data aggregation, resting state still performs worse than the other aggregations.

#### *Effect of scan length on model performance*

Looking across scan type and focusing on the models built using either 1200 volumes or the first 176 volumes from each scan condition, the effect of data amount on the percentage of successful models can be surmised. Overall, both of these scan conditions performed quite similarly, however the 176 volume data had a higher percentage of successful models; 19.82% for the 176 volume condition (vs. 18.09% for the 1200 volumes data). While the general pattern of results was similar, the 176 volume models tended to perform better than the 1200 volume models. This is clearly seen when comparing across scan condition (figure 4.1). The models built with 176 volumes tended to perform at least a couple of percentage points better than the 1200 volume models.



a Percentage of successful aggregated data models: 1200 volumes



b Percentage of successful aggregated data models: 176 volumes

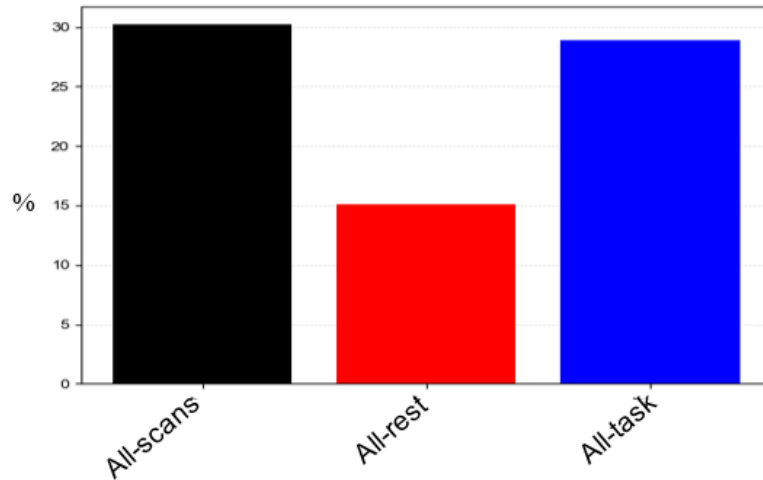


Figure 4:2. Percentage of successful models built using aggregated scan condition data.

Aggregated conditions include All-scans, All-rest, and All-task. Each bar is the percentage of successful models across the scan condition listed. A) These models were constructed using 1200 volumes/run of scan data. B) These models were constructed using the first 176 volumes/run of scan data volume condition, but this was not the case in the 176 volume condition where the relational scan condition was second best.

### *Effect of sample size*

To determine the effect that sample size has on the percentage of successful models, data with 1200 volumes/run was split into sample sizes of 20, 50, 100, and the full 232 subjects. The general pattern is what one might expect; the 232 subjects condition had the highest percentage of successful models while the 20 subject condition had the lowest. The percentage of successful models was quite low for the 20 subjects (0.37%), 50 subjects (1.9473%), and 100 subjects (3.33%) conditions, indicating very poor CPM performance at sample sizes routinely used in fMRI studies. As can be seen in Figure 4.3b, as more subjects were added there was a gradual decrease in the median p-value of the model produced Spearman correlations. Thus, the models start producing more highly significant predictions, with the generally more successful scan conditions beginning to stand out, as more subjects were added (see appendix B figure 1). One point to note is that figure 4.3 (and all the other results shown) shows the percentage of successful models that were significant after a Bonferroni correction. If no Bonferroni correction is used, the number of successful models is much higher (see appendix B figure 2).

### *Comparison of individual measures*

It is not always the case that task-based scans outperform rest, or that aggregated data outperforms single scan models. The best type of imaging data for CPM may be more measure specific.

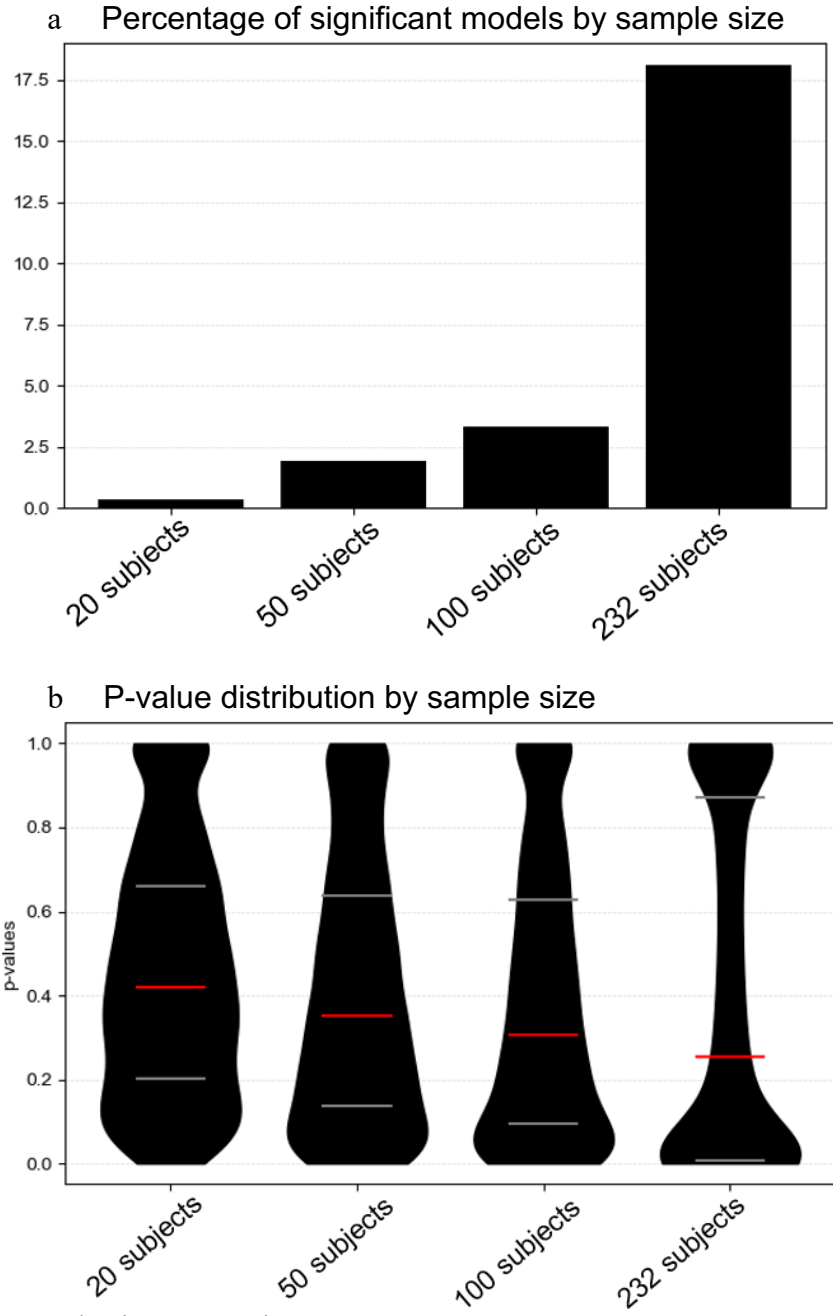


Figure 4.3. Sample size comparison.

Data in figure from data condition containing 1200 volumes per run. a) Bar chart displaying the percentage of successful models across sample size. b) Violin plots displaying the distribution of p-values for models produced across sample sizes. Red line is the median p-value. Gray lines indicate the 25<sup>th</sup> and 75<sup>th</sup> percentiles. The width of the plots indicates the density of observations at the corresponding p-value on the y axis.

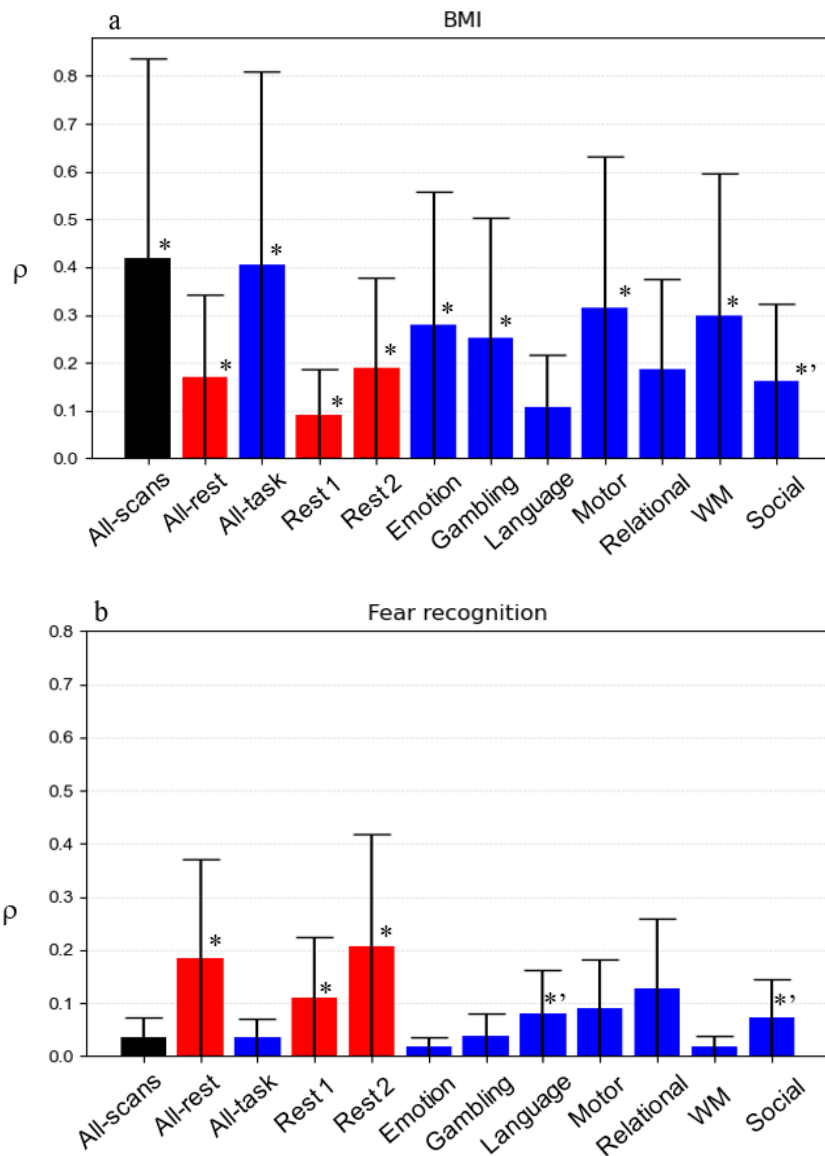


Figure 4:4. Evaluation of model predictions for BMI and fear recognition.

Comparison of models built from the 1200 volumes and 232 subjects set of data to predict a) body mass index and b) success at identifying fearful faces (ER40-FEAR), across scan conditions. Models evaluated using Spearman rank correlation ( $\rho$ ). Asterisks denote significant models as determined by permutation testing. Error bars are the 95% confidence interval. Red bars indicate resting state data; blue indicates task-based data.

For example, comparing models predicting body mass index (BMI) and fear recognition, reveals different optimal scan conditions are best for model construction. BMI is more significantly predicted by the All-scan condition ( $\rho=0.42$ ;  $Z=6.154$ ,  $p<0.001$ ) and the All-task condition ( $\rho=0.40$ ;  $Z=6.154$ ,  $p<0.001$ ) than by the All-rest condition ( $\rho=0.17$ ). In general task does better than resting state to predict BMI. In contrast, the accuracy at identifying faces displaying fear is more significantly predicted by rest data than task data; All-rest ( $\rho=0.19$ ) vs. All-task ( $\rho=0.04$ ;  $Z=6.144$ ,  $p<0.001$ ). Thus, while in general task may be better than rest, for specific measures this might not be the case. Some measures may also be more able to be predicted. The BMI metric was strongly predicted by the models such that even its worst performing models had higher  $\rho$  values than the best performing fear recognition models. Thus, the fear recognition measure was simply less able to be predicted from functional connectivity data and may require different model considerations than BMI to successfully predict.

#### *Insights into processing of task context*

Due to the COVID-19 pandemic, I did not continue with my initial scanning project in which I would have investigated individual differences in context utilization directly. Instead, as an initial step towards understanding context processing modulation, I chose to highlight a few of the HCP measures that could possibly relate to context processing. The following models were constructed using all subjects and the 1200 volumes of scanning data per run.

#### Sustained attention

The Short Penn Continuous Performance Test (Gur et al., 2001) was used to measure continuous sustained attention ability. The task required subjects to respond when the seven-line segments shown continuously on screen formed a letter or number. Performance was quantified with  $d'$  (sensitivity). I elected to display this measure because it is the only HCP task specifically aimed at assessing an aspect of attention. However, none of the CPMs were able to successfully predict this measure. See figure 4.5a.

#### Flanker task

The flanker task measures attention and inhibitory control ability. Participants had to maintain focus on a central arrow while inhibiting attention to the surrounding (flanking) arrows. Sometimes the flanking arrows pointed in the same direction as the central arrow (congruent) and sometimes in the opposite direction (incongruent). Subjects had to report the direction of the central arrow without being influenced by the flankers (Eriksen & Eriksen, 1974). This task can be thought of as containing a context (i.e. the flanking letters) that can modulate task performance. The resulting measure being predicted takes into account both accuracy and speed. The age adjusted results are shown in figure 4.5b. The flanker results were able to be successfully predicted by several task scan conditions, and the All-scan and All-task conditions. The fact that a wide range of task conditions were the most successful at predicting flanker performance may indicate that the task requires the use of a wide variety of cognitive processes and brain regions. There is a possibility that context processing would share some of the flanker task

network components. Of note is the significant performance of the motor scan condition, which may encompass the response inhibition aspects of the task.

### Long-term episodic memory

The picture sequence memory test (figure 4.5d) was used to assess long-term memory ability. Participants were shown a series of illustrated objects and activities shown in a particular order. The length of the series increased over time. Participants had to correctly re-order the pictures and were given a point for each adjacent pair correct. This measure (age adjusted) was successfully predicted (non-Bonferroni corrected) using the two rest scans individually and the All-rest condition. No task-based scanning data was able to successfully predict memory. Due to both episodic memory and contextual cueing involving the medial temporal lobe structures, and resting state predicting episodic memory performance, a study of context processing may benefit from including a resting state scan.

### Working memory

The working memory task highlighted here is from the task-evoked fMRI sessions. Participants completed an n-back task while being scanned and the measure being predicted by the CPM is 2-back accuracy. Working memory performance was able to be predicted successfully from all scan conditions (figure 4.5c). Similar to the flanker task, context processing may share some working memory network components. A notable finding was that the working memory task itself was not the best predictor of n-back performance.

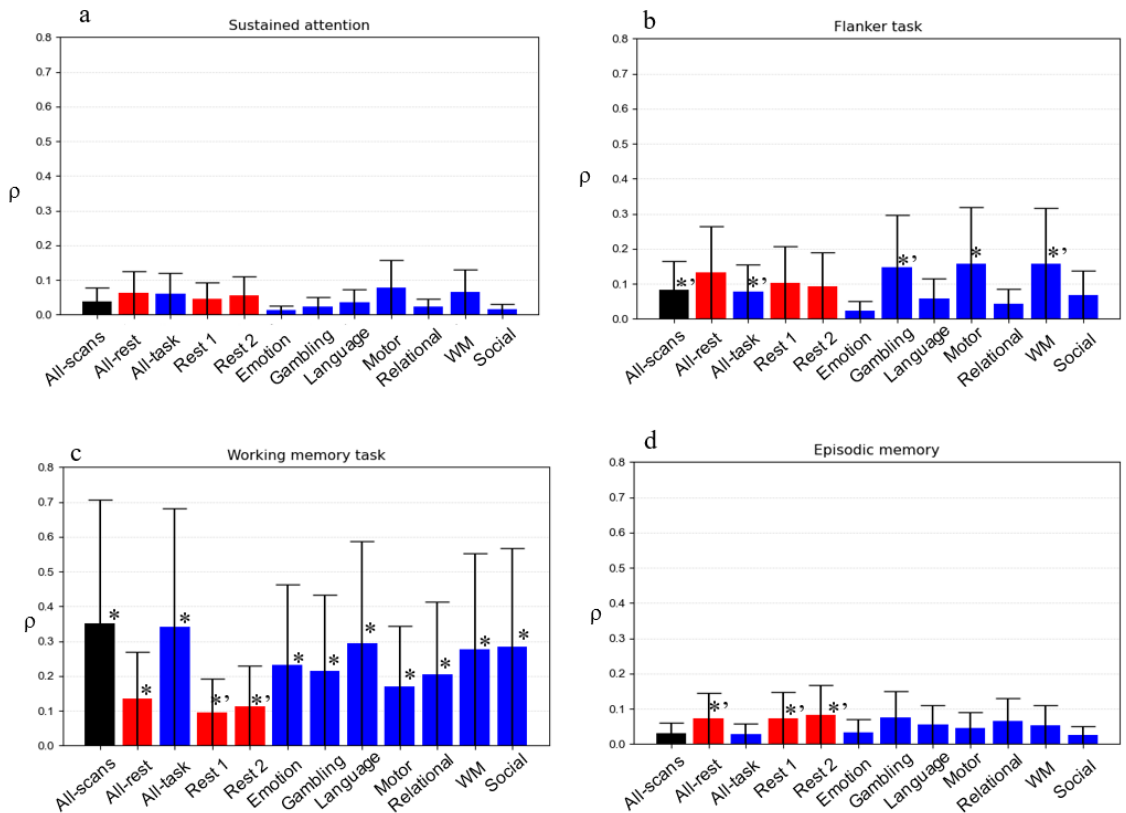


Figure 4:5. Comparison of models predicting measures related to context processing.

Comparison of models built from the different types of scan conditions to predict a) sustained attention, b) flanker task performance, c) working memory, and d) episodic memory. Models evaluated using Spearman rank correlation ( $\rho$ ). Solo asterisks denote significant models as determined by permutation testing with a Bonferroni correction. Asterisks with an apostrophe indicate non-Bonferroni significance. Error bars are the 95% confidence interval.

Since working memory is so important to many complex cognitive processes (Conway et al., 2003; Sub et al., 2002), it makes sense for WM performance to be predicted from a distributed array of functional connectomes. This suggests that working memory involves a distributed network of brain regions that would likely interact with a network that would predict context processing.



## Discussion

CPM is an increasingly popular method for studying brain-behavior relationships, and predict behavioral and phenotypic metrics. However, how successful is CPM and what factors can influence that success? This study sought to answer these questions by building thousands of CPMs from several types of scanning data to predict 291 of the phenotypic measures available from the Human Connectome Project data set. It was found that the overall success rate of model predictions was 18.09%. Success though varied quite a bit depending on the measure being predicted, the type of scanning data used, and the number of subjects. More subjects led to more stable and successful predictions. More scan data though, did not seem to improve models as 176 volumes and 1200 volumes were similarly successful at predicting the measure of interest; if anything the 176 volume condition did better. It was additionally found that task scans did produce more effective models than resting state, and that aggregating scan conditions led to more successful models.

It was at first surprising to see that having more data did not lead to a higher number of successful predictions. Since more data leads to better intrinsic functional connectivity, it was expected this pattern would be similar for scan length. There were virtually no differences between having 2400 volumes (30 minutes) and 352 volumes (4:32 minutes). This result though has been corroborated in previous research. Elliott et al. (2018) used CPM to predict fluid intelligence (PMAT24\_A\_CR) of HCP subjects. Models were constructed using 10 minutes and 40 minutes of resting state or general functional connectivity data (task plus resting state combined). All models successfully

predicted behavior, however increasing the scan time did not lead to an improvement in predictability. Resting state models saw a decrease in percent variance explained from a 10 minute scan to a 40 minute scan, ~7.75% to 4.2% respectively. Global functional connectivity models also saw a decrease from ~10.5% to 7.6% (Elliott et al., 2018). Gao et al. found a similar result for predicting fluid intelligence (Gao et al., 2019). Thus, it appears that a longer scan length, while benefitting test-retest reliability of intrinsic connectivity and individual subject identification (Finn et al., 2015), does not improve the predictive ability of a model. However, I did not specifically investigate this on a measure-by-measure basis so it is possible for some measures (ones with less variability between subjects or with connectivity features that are less powerful for predicting behavior for example) would benefit from more scan time. Lastly, only the first 176 volumes were used in analysis. In future analysis, the last volumes of the run or volumes from the middle of runs can be used to construct models. Since there may be differences in a subject's functional connectivity patterns from the beginning to the end of the run, this may explain why the first 176 volumes resulted in superior performance.

In contrast, having an increased number of subjects improves prediction success. This could be expected given the benefits of larger samples on generalization and reducing model overfitting (Vapnik, 2000; Pereira et al., 2009). Cui et al. (2018) assessed the impact of 25 different sample sizes (20-700) on six machine learning regression algorithms to predict cognitive outcomes from whole-brain resting state functional connectivity data. For nearly all algorithms, the prediction accuracy increased and the standard deviation of predictions decreased exponentially as the sample size increased.

However, this was not the case for all of the four phenotypic measures being predicted; for these only the variance of the predictions decreased while the average accuracy did not change significantly. Again, this may reflect differences between measures.

As has been seen with previous work (Elliott et al., 2018; Gao et al., 2019, Rosenberg et al., 2016), task-based scans outperformed resting state scans when building predictive models. This was the case across a wide variety of metrics. Thus, it does appear that task is better able to draw out unique functional connectivity features that allow individual identification. In addition, aggregating scans across tasks, and across both rest and task led to better performing models, with the All-scan condition performing the best. Thus, in general, it seems that having more types of data aggregated into a GFC matrix may enhance a common “backbone” of intrinsic connectivity across rest and task scan data. This may be what allows for better prediction of individual differences (Elliott et al., 2018). However, the predictive success of both the All-scans and All-task models appear to be primarily driven by the best performing single scan model of working memory. The suggestion then, may be if subjects are already going to be performing a working memory task in the scanner, it may not be beneficial to add additional tasks to do GFC analysis; the working memory task may suffice. The performance of the aggregated All-rest condition did not greatly improve predictive performance and individual runs in general were less likely to lead to successful predictions. Thus, having more resting data with its unconstrained functional activity may not help exemplify individual differences any more than having a single resting state run.

When examining HCP measures that may relate to context processing, the flanker and working memory results showed that a wide variety of scan conditions could successfully predict behavioral outcomes. This wide range of scan conditions suggests that many types of mental processes may contribute to the behavioral outcomes seen for tasks that assess response inhibition, attention, and working memory. Thus, since these cognitive processes may play a role in context processing, a CPM specifically investigating how one responds to context might expect to also see many task-based scan conditions able to predict behavioral measures. For the flanker and working memory measures, task-based data was better than rest data. Results were the opposite for the episodic memory task. Resting state data leading to better episodic memory predictions than task data is consistent with episodic memory involving brain regions found in the default mode network (Sestieri et al., 2011). So, episodic memory may be one of the few cases where rest is better than task. In summary, working memory, episodic memory, and the flanker task were able to be successfully predicted from some constructed CPMs; sustained attention was not. While this analysis is limited due to none of the studied metrics specifically addressing context processing, the results provide some optimism that context-based learning could be predicted as well. Even though future work is necessary to specifically predict context, this small examination into related cognitive processes is a good start to a full-fledged investigation.

Another take-away from the results is that there does not appear to be a one size fits all model for predicting all phenotypic measures. While it may be a safer bet to select task-based scanning data and to utilize a large sample size, there is still no guarantee that

one will produce a successful model. Rather, it is necessary to fine tune model components to best apply to the specific questions being asked. Thus, the hope is that this work will allow some of the guesswork to be taken out of the equation.

Methodological decisions have the potential to affect the outcome of a CPM. In the presented analyses, I tried to maintain consistency with the original CPM methods outlined by Shen and colleagues (2017), however my results could very well be different given different methods. For example, Yoo and colleagues built different CPMs that compared various connectivity measures and feature selection algorithms. It was found that for rest data, partial least squares regression was numerically better than full regression. In addition, using accordance (the degree to which signals are oppositely activated) and Pearson correlation were better than using discordance features, although this might be different for different behavioral measures of interest (Yoo, et al., 2018). Even the parcellation atlas used can significantly impact results (Bijsterbosch et al., 2019), and how nodes are best defined may be dependent on the task completed in the scanner (Salehi et al., 2020). Thus, it seems that the success of a CPM is quite dependent on a variety of decisions made throughout the experimental process. There are also measures other than Spearman-rank correlation that can be used to evaluate model performance. Pearson correlation, and the cross validated R squared (Scheinost et al., 2019) are other options. While correlation is most frequently used in the functional imaging literature, other measures to consider are using the mean squared error, root mean squared error, or the normalized values of these (Scheinost et al., 2019). These

different ways to assess model significance should be selected with consideration of the data characteristics such as spread or variability.

Maybe one of the most influential methodological decisions involves preprocessing and denoising of the imaging data prior to model building. For example, one of the most controversial denoising strategies is global signal regression (GSR). Some studies have found that GSR is beneficial for predicting behavior from functional connectivity data (Hampson et al., 2010; Yeo et al., 2015;) and others have found it weakens the relationships (Yang et al., 2014; Gotts et al., 2013) or has no effect (Cui et al., 2018). I decided to perform GSR for this analysis to fall in line with many previous studies in the field, but it is possible GSR impacts some measures more than others. For example, Li et al. (2019) found that GSR was beneficial for predicting task performance measures while it did not aid in prediction of self-report demographic measures. I cannot say for sure the effect that GSR had on my data, but since all scan data was preprocessed the same way, I can at least be sure there is not variability in the results due to differing methods.

There is a great deal of additional analysis that can be done (a lot of which can be completed with the existing data). For example, separating the massive amount of data into specific categories of phenotypic measures (e.g. cognitive measures vs health measures) can help determine which scan conditions, what sample size, or how much data should be collected to ensure a significant model for specific types of measures. It would also be helpful to look at each measure individually to summarize the best scan condition, etc. for prediction. All-scan conditions could be exhaustively combined in

different ways to determine which combination is most successful at predicting various behaviors. Gao et al., (2019) used forward feature selection to determine the optimal combination of scan conditions to best predict fluid intelligence. Using this approach for all HCP measures could greatly assist in selecting the proper scanning data for one's measure of interest and provide insight into how activating different mental processes can influence predictive models. It would also be prudent to evaluate a greater number of sample sizes and data amounts, and to combine different phenotypic measures into a single aggregate score to be used for prediction (such as combining all memory measures or health measures). Aggregating phenotypic results could lead to the identification of networks that represent multiple underlying neural components of each separate network.

An important direction that I did not explore in this work is delving into network anatomy. It is helpful to predict behaviors, but investigating the specific anatomical distribution of edges that are a part of the model furthers interpretation of the findings. For example, seeing how different regions of the brain are represented in various canonical networks (i.e, default mode, salience networks) can provide insight into the underlying neural contributions leading to a behavior (Greene et al., 2018; Noble et al., 2017). One can also group the reliable edges into macroscale brain regions such as the prefrontal and occipital cortices to better visualize distributions of predictive edges. This would have been helpful when attempting to explore how predictive models related to attention, memory, and executive performance can inform individual differences in context processing. Identifying the anatomy of predictive networks is probably one of the

best aspects that can be harnessed from CPM, and is something that would be done in the future to further this work.

Overall, my ultimate hope once this project is fully concluded is that this analysis can assist other researchers in building successful CPMs. Often times when designing a study it can be difficult to determine the best course of action. Especially in fMRI, making an error during the design process can result in significantly wasted time and resources if too few subjects are run or the wrong in-scanner task is selected. Even if one's own data is not collected, it can take many hours sifting through large databases to select the best imaging data and measures of interest. It would be great if this data could provide others with more knowledge to create successful models of their own. CPM is a very user-friendly approach and it does not require a high level of expertise in machine learning or connectivity analysis to get started (Shen et al., 2017). Thus, having more knowledge when selecting imaging data or sample size could further lower the barrier to successful connectivity analysis for individual differences exploration.



## **Chapter 5. General Discussion and Conclusions**

In this dissertation, I sought to explore the ways in which task context can modulate behavior, different factors that may influence this modulation, and a review of a method which can assist in studying individual differences in task processing. While the chapters of this dissertation may seem disparate from each other, they each played to their strengths in order to touch upon a different facet related to task context. This work allowed me to demonstrate just how complex the interaction between one's environment and their behavior is and the multitude of factors that can influence that interaction. I also considered how individual differences could affect how people are affected by context and exhaustively assessed the benefit of a predictive modeling technique in studying these differences. Each study had a role to play in forming a more well-rounded understanding of task context.

The first project focused on a classic task used to study spatial context, the contextual cueing paradigm. I was able to show that it is specifically the learning of contextual information that is attenuated by having to perform another task in close temporal proximity to the to be learned context. Hence, the context's ability to influence behavior was stifled by a secondary task. The secondary task occurred during a time consolidation would be taking place during the trial. This disruption of consolidation appears the likely reason subjects were unable to display a contextual cueing effect. I

speculated that the secondary task drew attention away from the spatial context of the visual search, preventing short-term consolidation and formation of a long-term memory trace. I was also able to show attenuation of cueing due to both a spatial and non-spatial secondary task, thus it does not appear that exhausting cognitive resources related to these types of tasks is the sole reason for a lack of context learning.

However, not all experiments resulted in cueing attenuation due to the secondary task. One reason could be due to other cognitive processes and external factors that may influence how disruptive a secondary task is to context learning. These external factors include the task difficulty and amount of time to complete the task. Another reason could be due to individual differences in expressing a cueing effect (Smyth & Shanks, 2008).

Overall, the chapter 2 demonstrated, for the first time, cueing attenuation due to a secondary task immediately after the search. It appears that the secondary task may take over attentional and cognitive resources needed for successful consolidation of the spatial context. These results are important in the literature because they make people aware of factors that can impact whether a contextual cueing effect arises. The results also bring to light the need for more studies regarding the time course of implicit spatial learning; something that can be further studied in the future.

The second project further delved into visual working memory and attention. Rather than focus on the effect of spatial context, I assessed the way in which a Gestalt grouping context could influence task performance and visual working memory capacity. Since working memory is a limited resource, it is prudent to evaluate how people overcome those limitations to manage visual information. Utilizing the CDA to assess the

number of items held in working memory, I was able to examine how an illusory object is stored and represented in VWM. It was found that when items are grouped such that they produce an illusory Kanizsa triangle, subjects have improved behavioral performance on a visual change detection task. Unexpectedly though, the CDA for the Kanizsa condition was no different than the other 3 item conditions, indicating the CDA appeared to be represented as three distinct objects. However, based on previous studies (Allon et al., 2019; McCollough, 2011; Peterson et al., 2015), it seems likely that the Kanizsa triangle should have some effect on VWM capacity. It was concluded that perhaps the limited amount of time subjects were provided to view the illusory grouping context prevented them from properly wielding an efficient encoding strategy.

Thus, for a complex context like an illusory object to both capture attention and lead to changes in VWM, encoding processes may need longer than 200 ms. This study demonstrated how powerful context can be in influencing behavior and VWM. Context may also interact with individual differences in VWM capacity to exert effects. Since I found that subjects with higher VWM capacities performed better in response to the Kanizsa triangle, a higher capacity must afford an individual improved ability. How these abilities arise due to differences in encoding to VWM is still awaiting an answer.

The last study investigated a method with which individual differences in context utilization can be studied. Connectome based predictive modeling is a method for building predictive models of phenotypic measures from whole brain functional connectivity (Finn et al., 2015; Shen et al., 2017). These models can give tremendous insight into dissociable brain networks, and brain behavior relationships. However it was

not known how well CPM would be able to predict a wide variety of behavioral measures or the type of data and sample sizes that would lead to the best models. To this end, I exhaustively constructed CPMs from multiple types of scanning data to predict a wide range of phenotypic measures from the Human Connectome Project database. Overall, there was a CPM success rate of 18%, however this varied depending on the type of imaging data used to build the models and the phenotypic measure being predicted. Scan length was found not to have as great of an impact on prediction success as sample size. In addition, while task data appeared more successful, overall prediction success varied depending on the scan type, and behavioral measure being predicted. Some phenotypic measures were able to be predicted better from rest, others from scan and others from a combination of these scan types. Thus, this work is important for providing some basic guidelines for experiment design and aiding in the building of successful model.

I also further looked at four HCP measures that would possibly be able to inform how individuals are influenced by context and how that impacts information processing. Unfortunately, no models were successful at predicting sustained attention. However, flanker task performance and working memory performance were able to be predicted by a wide range of scan types, and episodic memory was predicted from resting state data. The results potentially indicate that cognitive processes including working memory, attention and inhibitory control could also play a role in context processing.

Overall, this work on CPM helped reveal just how well this predictive modeling method is and what factors can influence its success. CPM's utility in investigating brain-behavior relationships was demonstrated and would be a helpful tool to further

characterize individual differences in processing task context with the appropriate methodologies to maximize its success.

One main limitation in this dissertation is the lack of a chapter utilizing CPM to build brain-behavior relationships for a context specific measure related to contextual cueing or VWM change detection tasks. Such a study was not able to be developed, and the best I was able to do given the circumstances was to explore cognitive measures related to context processing. However, it is helpful to design such an fMRI study and to speculate on what the results might show. Recent studies have indicated that whole brain functional connectivity networks can predict individual differences in long-term memory and working memory (Lin et al., 2020; Avery et al., 2019, Bertolero et al., 2018). This use of functional connectivity is in contrast to previous studies which tended to focus on differences in activation in specific regions of interest (Xu & Chun, 2006; Todd & Marois, 2005; McNab & Klingberg, 2008). Utilizing whole brain functional connectivity opens up many possibilities to studying the impact of context on tasks normally not utilized in the scanner environment such as visual search tasks. The above information makes studying contextual cueing in the scanner with CPM an intriguing idea.

I would propose a future experiment that could attempt to understand the neural basis of individual differences in contextual cueing using CPM. Participants could complete a classic contextual cueing experiment in the scanner while whole-brain functional data is recorded. Then, a CPM could be built to predict an individual's contextual cueing effect magnitude from this whole-brain functional connectivity data. Such initial results could indicate that individual differences in connectivity can predict

whether someone displays a contextual cueing effect. Second, network anatomical analysis can be done to investigate the neural substrates underlying the contextual cueing network. Areas of interest would include medial temporal lobe structures and subcortical networks which are important for LTM. Thus, it would be possible to understand more about the neural architecture supporting contextual cueing.

Another area to explore are the individual contributions of LTM and WM to contextual cueing. In Lin et al. (2020) it was found that a CPM generated LTM network and a WM network contain overlapping edges, many of which were in the salience network, indicating possible shared cognitive processes supporting both forms of memory. However, the networks were also dissociable from each other with distinct neural foundations. Connections within the visual, default mode, and subcortical networks contributed to LTM. Connections in motor, frontoparietal, default mode, and salience networks contributed more to WM networks. Given these dissociable networks, it would be interesting to determine areas of overlap or distinction from these LTM and WM networks. Less about the role of WM in cueing is known, thus this would provide a way to determine the contributions of WM to cueing. Many more avenues of research can be built from this initial foundation. For example, with long enough scan time, would it be possible to build a CPM based off of functional connectivity data acquired only during the consolidation period? In addition, studying the impact of grouping contexts on VWM capacity is also something that could also be attempted in the scanner.

In conclusion, this dissertation had a goal of exploring how contexts we are exposed to can modulate information processing during a task. Whether it is a spatial

context guiding visual search, or an illusory triangle influencing VWM, the way context can modulate information processing is affected by a variety of factors from attention to individual differences. Studying how individual differences and cognitive factors can affect context processing can be done using CPM with care taken to select optimal model building settings. CPM can provide details on the brain-behavior relationships underlying how our behaviors are modulated by context. Overall, context plays a critical role in our lives and is an important concept to further study.

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## Appendix A. Human Connectome Project phenotypic measures

List of all phenotypic measures that attempted to be predicted.

See [https://wiki.humanconnectome.org/display/PublicData/HCP-YA+Data+Dictionary+Updated+for+the+1200+Subject+Release#HCPYADictionaryUpdatedforthe1200SubjectRelease-Instrument:EpisodicMemory\(PictureSequenceMemory\)](https://wiki.humanconnectome.org/display/PublicData/HCP-YA+Data+Dictionary+Updated+for+the+1200+Subject+Release#HCPYADictionaryUpdatedforthe1200SubjectRelease-Instrument:EpisodicMemory(PictureSequenceMemory)) for a complete description tasks and measures.

Column1	Column2
MMSE_Score	WM_Task_Acc
PSQI_Score	WM_Task_Median_RT
PSQI_Comp1	WM_Task_2bk_Acc
PSQI_Comp2	WM_Task_2bk_Median_RT
PSQI_Comp3	WM_Task_0bk_Acc
PSQI_Comp4	WM_Task_0bk_Median_RT
PSQI_Comp5	WM_Task_0bk_Body_Acc
PSQI_Comp6	WM_Task_0bk_Body_Acc_Target
PSQI_Comp7	WM_Task_0bk_Body_Acc_Nontarget
PSQI_BedTime	WM_Task_0bk_Face_Acc
PSQI_Min2Asleep	WM_Task_0bk_Face_Acc_Target
PSQI_GetUpTime	WM_Task_0bk_Face_ACC_Nontarget
PSQI_AmtSleep	WM_Task_0bk_Place_Acc
PSQI_Latency30Min	WM_Task_0bk_Place_Acc_Target
PSQI_WakeUp	WM_Task_0bk_Place_Acc_Nontarget
PSQI_Bathroom	WM_Task_0bk_Tool_Acc
PSQI_Breathe	WM_Task_0bk_Tool_Acc_Target
PSQI_Snore	WM_Task_0bk_Tool_Acc_Nontarget
PSQI_TooCold	WM_Task_2bk_Body_Acc
PSQI_TooHot	WM_Task_2bk_Body_Acc_Target
PSQI_BadDream	WM_Task_2bk_Body_Acc_Nontarget
PSQI_Pain	WM_Task_2bk_Face_Acc
PSQI_Other	WM_Task_2bk_Face_Acc_Target

PSQI_Quality	WM_Task_2bk_Face_Acc_Nontarget
PSQI_SleepMeds	WM_Task_2bk_Place_Acc
PSQI_DayStayAwake	WM_Task_2bk_Place_Acc_Target
PSQI_DayEnthusiasm	WM_Task_2bk_Place_Acc_Nontarget
PSQI_BedPtnrRmate	WM_Task_2bk_Tool_Acc
PicSeq_Unadj	WM_Task_2bk_Tool_Acc_Target
PicSeq_AgeAdj	WM_Task_2bk_Tool_Acc_Nontarget
CardSort_Unadj	WM_Task_0bk_Body_Median_RT
CardSort_AgeAdj	WM_Task_0bk_Body_Median_RT_Target
Flanker_Unadj	WM_Task_0bk_Body_Median_RT_Nontarget
Flanker_AgeAdj	WM_Task_0bk_Face_Median_RT
PMAT24_A_CR	WM_Task_0bk_Face_Median_RT_Target
PMAT24_A_SI	WM_Task_0bk_Face_Median_RT_Nontarget
PMAT24_A_RTCT	WM_Task_0bk_Place_Median_RT
ReadEng_Unadj	WM_Task_0bk_Place_Median_RT_Target
ReadEng_AgeAdj	WM_Task_0bk_Place_Median_RT_Nontarget
PicVocab_Unadj	WM_Task_0bk_Tool_Median_RT
PicVocab_AgeAdj	WM_Task_0bk_Tool_Median_RT_Target
ProcSpeed_Unadj	WM_Task_0bk_Tool_Median_RT_Nontarget
ProcSpeed_AgeAdj	WM_Task_2bk_Body_Median_RT
DDisc_SV_1mo_200	WM_Task_2bk_Body_Median_RT_Target
DDisc_SV_6mo_200	WM_Task_2bk_Body_Median_RT_Nontarget
DDisc_SV_1yr_200	WM_Task_2bk_Face_Median_RT
DDisc_SV_3yr_200	WM_Task_2bk_Face_Median_RT_Target
DDisc_SV_5yr_200	WM_Task_2bk_Face_Median_RT_Nontarget
DDisc_SV_10yr_200	WM_Task_2bk_Place_Median_RT
DDisc_SV_1mo_40K	WM_Task_2bk_Place_Median_RT_Target
DDisc_SV_6mo_40K	WM_Task_2bk_Place_Median_RT_Nontarget
DDisc_SV_1yr_40K	WM_Task_2bk_Tool_Median_RT
DDisc_SV_3yr_40K	WM_Task_2bk_Tool_Median_RT_Target

DDisc_SV_5yr_40K	WM_Task_2bk_Tool_Median_RT_Nontar get
DDisc_SV_10yr_40K	Endurance_Unadj
DDisc_AUC_200	Endurance_AgeAdj
DDisc_AUC_40K	GaitSpeed_Comp
VSPLIT_TC	Dexterity_Unadj
VSPLIT_CRTE	Dexterity_AgeAdj
VSPLIT_OFF	Strength_Unadj
SCPT_TP	Strength_AgeAdj
SCPT_TN	Noise_Comp
SCPT_FP	Odor_Unadj
SCPT_FN	Odor_AgeAdj
SCPT_TPRT	PainIntens_RawScore
SCPT_SEN	PainInterf_Tscore
SCPT_SPEC	Taste_Unadj
SCPT_LRNR	Taste_AgeAdj
IWRD_TOT	Mars_Log_Score
IWRD_RTC	Mars_Errs
ListSort_Unadj	Mars_Final
ListSort_AgeAdj	Age_in_Yrs
CogFluidComp_Unadj	ZygotySR
CogFluidComp_AgeAdj	Race
CogEarlyComp_Unadj	Handedness
CogEarlyComp_AgeAdj	SSAGA_Income
CogTotalComp_Unadj	SSAGA_Educ
CogTotalComp_AgeAdj	Height
CogCrystalComp_Unadj	Weight
CogCrystalComp_AgeAdj	BMI
ER40_CR	SSAGA_BMICat
ER40_CRT	SSAGA_BMICatHeaviest
ER40ANG	BPSystolic
ER40FEAR	BPDiastolic
ER40NOE	ASR_Anxd_Raw
ER40SAD	ASR_Anxd_Pct
AngAffect_Unadj	ASR_Witd_Raw
AngHostil_Unadj	ASR_Witd_T

AngAggr_Unadj	ASR_Soma_Raw
FearAffect_Unadj	ASR_Soma_T
FearSomat_Unadj	ASR_Thot_Raw
Sadness_Unadj	ASR_Thot_T
LifeSatisf_Unadj	ASR_Attn_Raw
MeanPurp_Unadj	ASR_Attn_T
PosAffect_Unadj	ASR_Aggr_Raw
Friendship_Unadj	ASR_Aggr_T
Loneliness_Unadj	ASR_Rule_Raw
PercHostil_Unadj	ASR_Rule_T
PercReject_Unadj	ASR_Intr_Raw
EmotSupp_Unadj	ASR_Intr_T
InstruSupp_Unadj	ASR_Oth_Raw
PercStress_Unadj	ASR_Crit_Raw
SelfEff_Unadj	ASR_Intn_Raw
Emotion_Task_Acc	ASR_Intn_T
Emotion_Task_Median_RT	ASR_Extn_Raw
Emotion_Task_Face_Acc	ASR_Extn_T
Emotion_Task_Face_Median_RT	ASR_TAO_Sum
Emotion_Task_Shape_Acc	ASR_Totp_Raw
Emotion_Task_Shape_Median_RT	ASR_Totp_T
Gambling_Task_Perc_Larger	DSM_Depr_Raw
Gambling_Task_Perc_Smaller	DSM_Depr_T
Gambling_Task_Median_RT_Larger	DSM_Anxi_Raw
Gambling_Task_Median_RT_Smaller	DSM_Anxi_T
Gambling_Task_Reward_Perc_Larger	DSM_Somp_Raw
Gambling_Task_Reward_Median_RT_Larger	DSM_Somp_T
Gambling_Task_Reward_Perc_Smaller	DSM_Avoid_Raw
Gambling_Task_Reward_Median_RT_Smaller	DSM_Avoid_T
Gambling_Task_Punish_Perc_Larger	DSM_Adh_Raw
Gambling_Task_Punish_Median_RT_Larger	DSM_Adh_T
Gambling_Task_Punish_Perc_Smaller	DSM_Inat_Raw
Gambling_Task_Punish_Median_RT_Smaller	DSM_Hype_Raw



Language_Task_Acc	DSM_Antis_Raw
Language_Task_Median_RT	DSM_Antis_T
Language_Task_Story_Acc	SSAGA_ChildhoodConduct
Language_Task_Story_Median_RT	SSAGA_Depressive_Sx
Language_Task_Story_Avg_Difficulty_Level	EVA_Denom
Language_Task_Math_Acc	Total_Drinks_7days
Language_Task_Math_Median_RT	Num_Days_Drank_7days
Language_Task_Math_Avg_Difficulty_Level	Avg_Weekday_Drinks_7days
Relational_Task_Acc	Avg_Weekend_Drinks_7days
Relational_Task_Median_RT	SSAGA_Alc_D4_Dp_Sx
Relational_Task_Match_Acc	Total_Any_Tobacco_7days
Relational_Task_Match_Median_RT	Times_Used_Any_Tobacco_Today
Relational_Task_Rel_Acc	Num_Days_Used_Any_Tobacco_7days
Relational_Task_Rel_Median_RT	Avg_Weekday_Any_Tobacco_7days
Social_Task_Perc_Random	Avg_Weekend_Any_Tobacco_7days
Social_Task_Perc_TOM	Total_Cigarettes_7days
Social_Task_Perc_Unsure	SSAGA_Times_Used_Illicits
Social_Task_Random_Perc_Random	Avg_Weekday_Cigarettes_7days
Social_Task_Random_Perc_TOM	Avg_Weekend_Cigarettes_7days
Social_Task_Random_Perc_Unsure	Total_Chew_7days
Social_Task_TOM_Perc_Random	Avg_Weekday_Chew_7days
Social_Task_TOM_Perc_TOM	Avg_Weekend_Chew_7days
Social_Task_TOM_Median_RT_TOM	SSAGA_TB_Smoking_History
Social_Task_TOM_Perc_Unsure	SSAGA_Mj_Times_Used
	SSAGA_Times_Used_Hallucinogens

## Appendix B. Complete CPM results

	20 subjects	50 subjects	100 subjects	232 subjects_1200 volumes	232 subjects_176 volumes
All-scans	0.3436 %	4.124 %	6.873 %	28.87 %	30.24 %
All-rest	0.6873 %	0.3436 %	3.78 %	9.278 %	15.12 %
All-task	0.6873 %	5.155 %	6.529 %	28.52 %	28.87 %
REST1	0.3436 %	0.3436 %	2.062 %	10.31 %	14.43 %
REST2	0.3436 %	0 %	3.436 %	9.278 %	9.966 %
EMOTION	0.3436 %	1.375 %	0.6873 %	13.75 %	14.09 %
GAMBLING	0 %	1.375 %	1.375 %	16.15 %	16.84 %
LANGUAGE	0.3436 %	1.031 %	4.811 %	19.24 %	18.9 %
MOTOR	0.3436 %	0.3436 %	1.375 %	17.53 %	18.56 %
RELATIONAL	0.3436 %	2.749 %	1.718 %	18.21 %	22.34 %
SOCIAL	0.6873 %	3.093 %	5.498 %	16.84 %	15.46 %
WM	0 %	3.436 %	1.718 %	29.21 %	32.99 %

Appendix B:1. Bonferroni corrected percentage of successful models by scan and data condition.

	20 subjects	50 subjects	100 subjects	232 subjects_1200 volumes	232 subjects_176 volumes
All-scans	4.124 %	21.65 %	22.34 %	45.7 %	43.3 %
All-rest	4.811 %	10.65 %	15.46 %	27.49 %	30.58 %
All-task	4.467 %	23.37 %	23.71 %	43.64 %	43.64 %
REST1	1.375 %	8.935 %	14.09 %	25.77 %	34.36 %
REST2	6.873 %	6.529 %	15.12 %	23.37 %	26.8 %
EMOTION	10.65 %	8.247 %	17.18 %	29.9 %	30.93 %
GAMBLING	5.498 %	6.529 %	15.46 %	29.55 %	30.24 %
LANGUAGE	3.436 %	16.49 %	18.21 %	34.71 %	39.86 %
MOTOR	3.78 %	12.03 %	12.37 %	35.74 %	32.3 %
RELATIONAL	10.65 %	17.53 %	12.71 %	32.65 %	35.74 %
SOCIAL	10.65 %	14.78 %	23.71 %	33.33 %	33.68 %
WM	2.062 %	4.124 %	16.84 %	50.17 %	50.52 %

Appendix B:2. Non-Bonferroni corrected percentage of successful models by scan and data condition.

The following tables list the complete results for each CPM. Each table is a data condition and table contents are organized by scan condition along the columns and phenotypic measure along the rows. The Spearman-rank correlation value (on the left) along with the p-value determined by permutation testing (within parentheses). Asterisks indicate significance of correlations that survive a Bonferroni-correction. Due to the constraints in permutation testing, some p-values were returned as 0. These p-values are denoted in the table as  $p < 0.00017$  (the Bonferroni threshold p-value).

1200 volumes | 232 subjects

1200 volumes   All subjects			
	allrest	allscans	alltask
Age_in_Yrs	0.1998 (p < 0.00017)	0.3613 (p < 0.00017)	0.3358 (p < 0.00017)
AngAffect_Unadj	0.0224 (0.882)	0.02982 (0.95)	0.03926 (0.97)
AngAggr_Unadj	0.0854 (0.16)	0.1858 (p < 0.00017)	0.1787 (p < 0.00017)
AngHostil_Unadj	0.03013 (0.548)	0.05147 (0.758)	0.07148 (0.604)
ASR_Aggr_Raw	0.03338 (0.616)	0.1504 (0.002)	0.1506 (p < 0.00017)
ASR_Aggr_T	0.03302 (0.604)	0.1165 (0.044)	0.1131 (0.02)
ASR_Anxd_Pct	0.02846 (0.474)	0.06065 (0.372)	0.08375 (0.102)
ASR_Anxd_Raw	0.01249 (0.964)	0.07365 (0.252)	0.1051 (0.06)
ASR_Attn_Raw	0.04535 (0.912)	0.0154 (0.906)	0.01766 (0.902)
ASR_Attn_T	0.07272 (0.226)	0.04418 (0.72)	0.04843 (0.742)
ASR_Crit_Raw	0.05302 (0.198)	0.1123 (0.024)	0.1147 (0.108)
ASR_Extn_Raw	0.0666 (0.776)	0.2262 (p < 0.00017)	0.2466 (p < 0.00017)
ASR_Extn_T	0.04986 (0.958)	0.2144 (p < 0.00017)	0.2255 (p < 0.00017)
ASR_Intn_Raw	0.04941 (0.248)	0.0696 (0.358)	0.08597 (0.286)
ASR_Intn_T	0.02414 (0.328)	0.05415 (0.728)	0.07114 (0.72)
ASR_Intr_Raw	0.05415 (0.99)	0.1735 (p < 0.00017)	0.1757 (p < 0.00017)
ASR_Intr_T	0.05369 (0.94)	0.1515 (p < 0.00017)	0.1539 (p < 0.00017)

ASR_Oth_Raw	0.04586 (0.03)	0.05692 (0.272)	0.06889 (0.468)
ASR_Rule_Raw	0.1006 (p < 0.00017)	0.2903 (p < 0.00017)	0.2825 (p < 0.00017)
ASR_Rule_T	0.04238 (0.254)	0.1781 (p < 0.00017)	0.1718 (p < 0.00017)
ASR_Soma_Raw	0.04495 (0.266)	0.09784 (p < 0.00017)	0.08361 (0.002)
ASR_Soma_T	0.04539 (0.574)	0.07512 (0.002)	0.07719 (0.03)
ASR_TAO_Sum	0.0501 (0.2)	0.04105 (0.792)	0.04708 (0.818)
ASR_Thot_Raw	0.03555 (0.49)	0.118 (0.048)	0.137 (0.008)
ASR_Thot_T	0.0389 (0.29)	0.1172 (0.156)	0.1452 (0.024)
ASR_Totp_Raw	0.03769 (0.452)	0.07983 (0.296)	0.09175 (0.214)
ASR_Totp_T	0.06182 (0.212)	0.09237 (0.194)	0.09496 (0.234)
ASR_Witd_Raw	0.07191 (0.024)	0.06646 (0.266)	0.08946 (0.1)
ASR_Witd_T	0.04117 (0.366)	0.05582 (0.45)	0.06991 (0.334)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1521 (0.004)	0.139 (p < 0.00017)	0.126 (0.002)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.1136 (0.03)	0.1745 (p < 0.00017)	0.1807 (p < 0.00017)
BMI	0.1702 (p < 0.00017)	0.4183 (p < 0.00017)	0.4039 (p < 0.00017)
BPDiastolic	0.1187 (p < 0.00017)	0.1726 (p < 0.00017)	0.1586 (p < 0.00017)
BPSystolic	0.134 (0.002)	0.3812 (p < 0.00017)	0.3883 (p < 0.00017)
CardSort_AgeAdj	0.1902 (0.002)	0.1184 (0.504)	0.06604 (0.926)
CardSort_Unadj	0.2392 (p < 0.00017)	0.1292 (0.662)	0.1002 (0.93)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)

CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.07695 (0.026)	0.2074 (p < 0.00017)	0.19 (p < 0.00017)
DDisc_AUC_40K	0.07738 (0.002)	0.1775 (p < 0.00017)	0.1713 (p < 0.00017)
DDisc_SV_10yr_200	0.08668 (0.408)	0.1438 (p < 0.00017)	0.1202 (p < 0.00017)
DDisc_SV_10yr_40K	0.1377 (p < 0.00017)	0.1464 (p < 0.00017)	0.1267 (p < 0.00017)
DDisc_SV_1mo_200	0.1158 (0.092)	0.127 (p < 0.00017)	0.1225 (p < 0.00017)
DDisc_SV_1mo_40K	0.01011 (0.116)	0.06153 (0.08)	0.07409 (0.078)
DDisc_SV_1yr_200	0.1403 (0.002)	0.2292 (p < 0.00017)	0.2204 (p < 0.00017)
DDisc_SV_1yr_40K	0.08439 (0.046)	0.1407 (p < 0.00017)	0.145 (p < 0.00017)
DDisc_SV_3yr_200	0.06441 (0.02)	0.2121 (p < 0.00017)	0.2036 (p < 0.00017)
DDisc_SV_3yr_40K	0.09895 (0.022)	0.1702 (p < 0.00017)	0.1611 (p < 0.00017)
DDisc_SV_5yr_200	0.06182 (0.188)	0.1617 (p < 0.00017)	0.1531 (p < 0.00017)
DDisc_SV_5yr_40K	0.08286 (0.04)	0.159 (p < 0.00017)	0.1512 (p < 0.00017)
DDisc_SV_6mo_200	0.0444 (0.058)	0.07554 (0.002)	0.07006 (p < 0.00017)
DDisc_SV_6mo_40K	0.1029 (0.012)	0.1472 (p < 0.00017)	0.1305 (p < 0.00017)
Dexterity_AgeAdj	0.121 (0.07)	0.1022 (0.394)	0.1208 (0.316)
Dexterity_Unadj	0.1106 (0.194)	0.1242 (0.17)	0.1444 (0.138)
DSM_Adh_Raw	0.04881 (0.37)	0.03205 (0.692)	0.03439 (0.656)
DSM_Adh_T	0.04785 (0.16)	0.06071 (0.754)	0.09107 (0.44)
DSM_Antis_Raw	0.1033 (p < 0.00017)	0.3104 (p < 0.00017)	0.3222 (p < 0.00017)
DSM_Antis_T	0.05198 (0.156)	0.209 (p < 0.00017)	0.2302 (p < 0.00017)
DSM_Anxi_Raw	0.1042 (0.006)	0.1143 (0.002)	0.1429 (0.002)
DSM_Anxi_T	0.03704 (0.598)	0.08585 (0.03)	0.1007 (0.012)
DSM_Avoid_Raw	0.02538 (0.62)	0.03472 (0.882)	0.04449 (0.798)
DSM_Avoid_T	0.03569 (0.362)	0.0258 (0.948)	0.03817 (0.85)

DSM_Depr_Raw	0.02269 (0.678)	0.0764 (0.08)	0.08066 (0.09)
DSM_Depr_T	0.01892 (0.678)	0.05985 (0.05)	0.06019 (0.05)
DSM_Hype_Raw	0.04093 (0.344)	0.06894 (0.026)	0.09173 (0.012)
DSM_Inat_Raw	0.006477 (0.98)	0.004828 (0.998)	0.00278 (1)
DSM_Somp_Raw	0.1065 (0.108)	0.08535 (0.008)	0.06857 (0.05)
DSM_Somp_T	0.07317 (0.64)	0.05806 (0.012)	0.04716 (0.088)
Emotion_Task_Acc	0.07123 (0.078)	0.0909 (0.002)	0.09642 (0.004)
Emotion_Task_Face_Acc	0.05785 (0.388)	0.06112 (0.97)	0.05472 (0.986)
Emotion_Task_Face_Median_RT	0.04249 (0.55)	0.1167 (0.632)	0.09738 (0.86)
Emotion_Task_Median_RT	0.0577 (0.19)	0.1204 (0.434)	0.123 (0.404)
Emotion_Task_Shape_Acc	0.09648 (0.414)	0.1211 (0.026)	0.1262 (0.054)
Emotion_Task_Shape_Median_RT	0.08755 (0.056)	0.1225 (0.288)	0.1094 (0.212)
EmotSupp_Unadj	0.1347 (p < 0.00017)	0.07638 (0.146)	0.0566 (0.546)
Endurance_AgeAdj	0.1504 (0.078)	0.2396 (p < 0.00017)	0.2306 (p < 0.00017)
Endurance_Unadj	0.1787 (0.022)	0.2657 (p < 0.00017)	0.2593 (p < 0.00017)
ER40ANG	0.01477 (0.902)	0.02483 (0.994)	0.0377 (0.996)
ER40FEAR	0.1852 (p < 0.00017)	0.03597 (0.784)	0.03481 (0.768)
ER40NOE	0.05547 (0.786)	0.00815 (1)	0.01062 (1)
ER40SAD	0.009557 (0.85)	0.006611 (1)	0.003974 (1)
ER40_CRT	0.03361 (0.7)	0.03945 (0.866)	0.02978 (0.992)
ER40_CR	0.07136 (0.38)	0.03007 (0.938)	0.03085 (0.942)
EVA_Denom	0.03538 (0.064)	0.04339 (0.95)	0.04989 (0.876)
FearAffect_Unadj	0.0178 (0.88)	0.04772 (p < 0.00017)	0.04399 (0.028)
FearSomat_Unadj	0.1532 (p < 0.00017)	0.1301 (p < 0.00017)	0.1046 (0.004)
Flanker_AgeAdj	0.132 (0.088)	0.08182 (0.01)	0.07721 (0.024)
Flanker_Unadj	0.1494 (0.06)	0.1352 (p < 0.00017)	0.1291 (0.002)

Friendship_Unadj	0.01038 (0.794)	0.08266 (0.014)	0.08913 (0.022)
GaitSpeed_Comp	0.07331 (0.044)	0.1553 (p < 0.00017)	0.1803 (p < 0.00017)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.05323 (0.094)	0.1668 (p < 0.00017)	0.1451 (p < 0.00017)
Gambling_Task_Perc_Larger	0.02289 (0.954)	0.0377 (0.994)	0.04182 (0.99)
Gambling_Task_Perc_Smaller	0.02382 (0.946)	0.03256 (1)	0.04228 (0.996)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.1269 (0.006)	0.2029 (p < 0.00017)	0.1841 (p < 0.00017)
Gambling_Task_Punish_Perc_Larger	0.05308 (0.914)	0.1089 (0.212)	0.08362 (0.34)
Gambling_Task_Punish_Perc_Smaller	0.06161 (0.868)	0.1061 (0.282)	0.07567 (0.408)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.01618 (0.86)	0.01874 (1)	0.03018 (0.994)
Gambling_Task_Reward_Perc_Smaller	0.01638 (0.878)	0.02026 (1)	0.02747 (0.994)
Handedness	0.04993 (0.318)	0.1533 (0.002)	0.1772 (p < 0.00017)
Height	0.2818 (p < 0.00017)	0.5628 (p < 0.00017)	0.5774 (p < 0.00017)
InstruSupp_Unadj	0.07088 (0.138)	0.07152 (0.022)	0.05518 (0.092)
IWRD_RTC	0.03312 (0.298)	0.05481 (0.016)	0.05553 (0.026)
IWRD_TOT	0.0204 (0.78)	0.03943 (0.314)	0.03631 (0.276)
Language_Task_Acc	0.1545 (0.008)	0.3079 (p < 0.00017)	0.2956 (p < 0.00017)
Language_Task_Math_Acc	0.07143 (0.004)	0.2728 (p < 0.00017)	0.2887 (p < 0.00017)
Language_Task_Math_Avg_Difficulty_Level	0.1628 (p < 0.00017)	0.1253 (0.21)	0.1285 (0.462)
Language_Task_Math_Median_RT	0.08676 (0.422)	0.03044 (0.512)	0.02012 (0.576)
Language_Task_Median_RT	0.1258 (0.002)	0.09678 (0.122)	0.07423 (0.26)
Language_Task_Story_Acc	0.1069 (0.014)	0.1615 (p < 0.00017)	0.1651 (p < 0.00017)

Language_Task_Story_Avg_Difficulty_Level	0.07153 (0.07)	0.3222 (p < 0.00017)	0.3361 (p < 0.00017)
Language_Task_Story_Median_RT	0.1337 (p < 0.00017)	0.06619 (0.89)	0.07074 (0.868)
LifeSatisf_Unadj	0.1121 (0.016)	0.155 (p < 0.00017)	0.1086 (0.18)
ListSort_AgeAdj	0.1882 (0.038)	0.2365 (p < 0.00017)	0.2208 (p < 0.00017)
ListSort_Unadj	0.2033 (0.024)	0.2322 (p < 0.00017)	0.2258 (p < 0.00017)
Loneliness_Unadj	0.03205 (0.638)	0.112 (0.002)	0.1017 (0.002)
Mars_Errs	0.07286 (0.1)	0.04528 (0.086)	0.03593 (0.226)
Mars_Final	0.1144 (0.014)	0.2376 (p < 0.00017)	0.231 (p < 0.00017)
Mars_Log_Score	0.06744 (0.118)	0.2347 (p < 0.00017)	0.2584 (p < 0.00017)
MeanPurp_Unadj	0.09938 (p < 0.00017)	0.07568 (0.034)	0.07178 (0.088)
MMSE_Score	0.06029 (0.186)	0.06375 (0.724)	0.08871 (0.446)
Noise_Comp	0.04054 (0.328)	0.0688 (0.276)	0.06104 (0.388)
Num_Days_Drank_7days	0.186 (p < 0.00017)	0.1677 (p < 0.00017)	0.1478 (0.002)
Num_Days_Used_Any_Tobacco_7days	0 (1)	0.01012 (0.148)	0.02999 (0.122)
Odor_AgeAdj	0.06251 (0.034)	0.1055 (0.002)	0.09632 (0.014)
Odor_Unadj	0.0554 (0.072)	0.09282 (0.006)	0.09565 (0.008)
PainIntens_RawScore	0.04196 (0.338)	0.1062 (0.004)	0.09518 (p < 0.00017)
PainInterf_Tscore	0.09465 (0.68)	0.0776 (0.104)	0.07388 (0.02)
PercHostil_Unadj	0.01619 (0.996)	0.02789 (0.524)	0.0291 (0.5)
PercReject_Unadj	0.04783 (0.016)	0.06794 (0.002)	0.06053 (0.006)
PercStress_Unadj	0.02718 (0.88)	0.05392 (0.218)	0.05652 (0.29)
PicSeq_AgeAdj	0.07172 (0.048)	0.03001 (0.122)	0.02827 (0.27)
PicSeq_Unadj	0.0772 (0.056)	0.04277 (0.016)	0.04139 (0.13)
PicVocab_AgeAdj	0.03189 (0.186)	0.3131 (p < 0.00017)	0.3168 (p < 0.00017)
PicVocab_Unadj	0.01533 (0.178)	0.2617 (p < 0.00017)	0.2593 (p < 0.00017)



PMAT24_A_CR	0.04552 (0.476)	0.2894 (p < 0.00017)	0.2865 (p < 0.00017)
PMAT24_A_RTCR	0.05666 (0.07)	0.1292 (0.04)	0.1417 (0.026)
PMAT24_A_SI	0.05305 (0.65)	0.2575 (p < 0.00017)	0.2412 (p < 0.00017)
PosAffect_Unadj	0.02181 (0.55)	0.05888 (0.008)	0.05834 (0.052)
ProcSpeed_AgeAdj	0.04835 (0.928)	0.1332 (0.726)	0.1446 (0.202)
ProcSpeed_Unadj	0.04696 (0.94)	0.1412 (0.81)	0.168 (0.346)
PSQI_AmtSleep	0.07274 (0.124)	0.05466 (0.982)	0.04328 (0.988)
PSQI_BadDream	0.03251 (0.528)	0.03627 (0.408)	0.03642 (0.37)
PSQI_Bathroom	0.1234 (0.05)	0.08346 (0.11)	0.05241 (0.344)
PSQI_BedPtnrRmate	0.06372 (0.69)	0.1439 (0.022)	0.1302 (0.054)
PSQI_BedTime	0.1609 (0.008)	0.1038 (0.122)	0.09376 (0.324)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.07466 (0.336)	0.1089 (0.17)	0.1139 (0.09)
PSQI_Comp2	0.04771 (0.214)	0.03656 (1)	0.03485 (0.994)
PSQI_Comp3	0.1032 (0.2)	0.1291 (0.258)	0.1234 (0.446)
PSQI_Comp4	0 (1)	0.04093 (0.888)	0.03632 (0.99)
PSQI_Comp5	0.008614 (0.526)	0.06103 (0.922)	0.04208 (0.986)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.02923 (0.632)	0.0214 (0.99)	0.02508 (0.982)
PSQI_DayEnthusiasm	0.02557 (0.88)	0.02661 (0.976)	0.03084 (0.994)
PSQI_DayStayAwake	0 (1)	0.08246 (0.076)	0.1031 (0.014)
PSQI_GetUpTime	0.09521 (0.022)	0.05376 (0.99)	0.06599 (0.93)
PSQI_Latency30Min	0.0166 (0.542)	0.003976 (1)	0.00564 (1)
PSQI_Min2Asleep	0.05111 (0.656)	0.03423 (0.748)	0.05057 (0.54)
PSQI_Other	0.02277 (0.288)	0.007485 (0.674)	0.0155 (0.26)
PSQI_Pain	0 (1)	0.04412 (0.128)	0.03395 (0.036)
PSQI_Quality	0.0788 (0.338)	0.1016 (0.208)	0.1294 (0.036)
PSQI_Score	0.02808 (0.658)	0.07237 (0.4)	0.07087 (0.708)

PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0 (1)	0 (1)
PSQI_TooCold	0.08504 (0.16)	0.04456 (0.764)	0.06767 (0.564)
PSQI_TooHot	0.1069 (0.284)	0.08965 (0.024)	0.1152 (0.01)
PSQI_WakeUp	0.01584 (0.91)	0.07665 (0.002)	0.08608 (p < 0.00017)
Race	0 (1)	0.02133 (p < 0.00017)	0.01193 (0.002)
ReadEng_AgeAdj	0.1532 (0.016)	0.2383 (p < 0.00017)	0.2521 (p < 0.00017)
ReadEng_Unadj	0.1358 (0.026)	0.2464 (p < 0.00017)	0.2473 (p < 0.00017)
Relational_Task_Acc	0.1136 (0.018)	0.2621 (p < 0.00017)	0.2529 (p < 0.00017)
Relational_Task_Match_Acc	0.1125 (0.258)	0.277 (p < 0.00017)	0.2763 (p < 0.00017)
Relational_Task_Match_Median_RT	0.1104 (0.004)	0.1367 (0.036)	0.1167 (0.202)
Relational_Task_Median_RT	0.1535 (p < 0.00017)	0.1294 (0.012)	0.1222 (0.046)
Relational_Task_Rel_Acc	0.1067 (0.104)	0.1856 (0.072)	0.1628 (0.242)
Relational_Task_Rel_Median_RT	0.1241 (p < 0.00017)	0.1097 (0.026)	0.1255 (0.024)
Sadness_Unadj	0.0426 (0.756)	0.09026 (0.02)	0.08628 (0.058)
SCPT_FN	0.05519 (0.18)	0.03615 (0.778)	0.05579 (0.518)
SCPT_FP	0.0262 (0.62)	0.1357 (p < 0.00017)	0.1508 (p < 0.00017)
SCPT_LRNR	0.08107 (0.11)	0.02129 (0.982)	0.0293 (0.896)
SCPT_SEN	0.06205 (0.12)	0.0381 (0.756)	0.05957 (0.504)
SCPT_SPEC	0.02611 (0.678)	0.133 (p < 0.00017)	0.1576 (p < 0.00017)
SCPT_TN	0.02623 (0.684)	0.1453 (p < 0.00017)	0.1503 (p < 0.00017)
SCPT_TPRT	0.03957 (0.324)	0.06455 (0.85)	0.05863 (0.84)
SCPT_TP	0.06529 (0.11)	0.03519 (0.782)	0.05513 (0.57)
SelfEff_Unadj	0.08513 (0.99)	0.1099 (0.01)	0.1369 (p < 0.00017)
Social_Task_Perc_Random	0.07945 (0.012)	0.04464 (0.352)	0.04235 (0.4)
Social_Task_Perc_TOM	0.03186 (0.156)	0.1137 (0.894)	0.1107 (0.884)

Social_Task_Perc_Unsure	0.1042 (0.036)	0.04099 (0.796)	0.03347 (0.772)
Social_Task_Random_Perc_Random	0.06481 (0.04)	0.05058 (0.102)	0.05473 (0.162)
Social_Task_Random_Perc_TOM	0 (1)	0.01817 (0.266)	0.01803 (0.182)
Social_Task_Random_Perc_Unsure	0.0978 (0.45)	0.02255 (0.696)	0.01683 (0.75)
Social_Task_TOM_Median_RT_TOM	0.09457 (0.012)	0.1011 (0.088)	0.08805 (0.13)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.02272 (0.442)	0.06752 (0.328)	0.08805 (0.174)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.004487 (0.022)
SSAGA_Alc_D4_Dp_Sx	0.08963 (0.172)	0.1404 (0.002)	0.1453 (p < 0.00017)
SSAGA_BMICatHeaviest	0.1776 (0.018)	0.2836 (p < 0.00017)	0.269 (p < 0.00017)
SSAGA_BMICat	0.1498 (0.086)	0.3289 (p < 0.00017)	0.333 (p < 0.00017)
SSAGA_ChildhoodConduct	0.127 (0.016)	0.1966 (p < 0.00017)	0.2011 (p < 0.00017)
SSAGA_Depressive_Sx	0.01293 (0.064)	0.1372 (p < 0.00017)	0.1163 (0.016)
SSAGA_Educ	0.07279 (0.018)	0.09298 (0.49)	0.1039 (0.37)
SSAGA_Income	0.07518 (0.002)	0.01997 (0.876)	0.02187 (0.96)
SSAGA_Mj_Times_Used	0.09731 (0.042)	0.133 (0.012)	0.1237 (0.012)
SSAGA_TB_Smoking_History	0.07097 (0.02)	0.07956 (p < 0.00017)	0.09094 (p < 0.00017)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0 (1)
SSAGA_Times_Used_Illicits	0.005757 (0.01)	0.1856 (p < 0.00017)	0.1912 (p < 0.00017)
Strength_AgeAdj	0.3053 (p < 0.00017)	0.5877 (p < 0.00017)	0.5821 (p < 0.00017)
Strength_Unadj	0.2842 (p < 0.00017)	0.5971 (p < 0.00017)	0.5973 (p < 0.00017)
Taste_AgeAdj	0.0631 (0.962)	0.1303 (0.01)	0.1467 (0.002)
Taste_Unadj	0.0646 (0.936)	0.1292 (0.022)	0.1466 (0.002)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.1638 (p < 0.00017)	0.2256 (p < 0.00017)	0.2107 (p < 0.00017)

VSPLOT_CRTE	0.02627 (0.298)	0.1022 (0.01)	0.0885 (0.084)
VSPLOT_OFF	0.2308 (p < 0.00017)	0.2648 (p < 0.00017)	0.3001 (p < 0.00017)
VSPLOT_TC	0.1398 (p < 0.00017)	0.182 (p < 0.00017)	0.199 (p < 0.00017)
Weight	0.2969 (p < 0.00017)	0.5924 (p < 0.00017)	0.5857 (p < 0.00017)
WM_Task_Obk_Acc	0.05712 (0.208)	0.1042 (0.092)	0.09767 (0.268)
WM_Task_Obk_Body_Acc	0.004837 (1)	0.04873 (0.524)	0.04389 (0.524)
WM_Task_Obk_Body_Acc_Nontarget	0.01251 (0.986)	0.1014 (0.054)	0.1117 (0.028)
WM_Task_Obk_Body_Acc_Target	0.0299 (0.776)	0.004886 (0.926)	0.008189 (0.918)
WM_Task_Obk_Body_Median_RT	0.05887 (0.344)	0.06697 (0.89)	0.06012 (0.902)
WM_Task_Obk_Body_Median_RT_Nontar get	0.04154 (0.512)	0.08669 (0.894)	0.07916 (0.86)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.1028 (0.052)	0.1302 (0.09)	0.1078 (0.388)
WM_Task_Obk_Face_ACC_Nontarget	0.1138 (0.33)	0.1239 (0.564)	0.117 (0.704)
WM_Task_Obk_Face_Acc_Target	0.04665 (0.348)	0.09778 (0.246)	0.09497 (0.22)
WM_Task_Obk_Face_Median_RT	0.03632 (0.134)	0.07666 (0.028)	0.06158 (0.162)
WM_Task_Obk_Face_Median_RT_Nontar get	0.03369 (0.196)	0.05138 (0.2)	0.04987 (0.296)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.05289 (0.352)	0.06615 (0.716)	0.05319 (0.872)
WM_Task_Obk_Place_Acc	0.02832 (0.274)	0.07186 (0.016)	0.07313 (0.032)
WM_Task_Obk_Place_Acc_Nontarget	0.0328 (0.132)	0.06206 (0.044)	0.06878 (0.034)
WM_Task_Obk_Place_Acc_Target	0.03104 (0.256)	0.03483 (0.38)	0.03147 (0.402)
WM_Task_Obk_Place_Median_RT	0.05468 (0.182)	0.03146 (0.988)	0.02552 (0.98)
WM_Task_Obk_Place_Median_RT_Nontar get	0.08592 (0.064)	0.04343 (0.956)	0.05372 (0.882)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.06745 (0.062)	0.09287 (0.714)	0.09337 (0.836)
WM_Task_Obk_Tool_Acc_Nontarget	0.006151 (0.25)	0.1104 (0.316)	0.09848 (0.536)

WM_Task_0bk_Tool_Acc_Target	0.07198 (0.104)	0.09755 (0.414)	0.1004 (0.638)
WM_Task_0bk_Tool_Median_RT	0.01618 (0.8)	0.07856 (0.514)	0.08026 (0.318)
WM_Task_0bk_Tool_Median_RT_Nontarget	0.02387 (0.57)	0.09713 (0.456)	0.09181 (0.38)
WM_Task_0bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.134 (p < 0.00017)	0.3522 (p < 0.00017)	0.3405 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.08596 (0.974)	0.2795 (p < 0.00017)	0.2898 (p < 0.00017)
WM_Task_2bk_Body_Acc_Nontarget	0.06486 (0.73)	0.2152 (p < 0.00017)	0.2206 (p < 0.00017)
WM_Task_2bk_Body_Acc_Target	0.1904 (0.094)	0.2146 (0.002)	0.1981 (p < 0.00017)
WM_Task_2bk_Body_Median_RT	0.02255 (0.844)	0.1554 (p < 0.00017)	0.1583 (p < 0.00017)
WM_Task_2bk_Body_Median_RT_Nontarget	0.009277 (0.842)	0.1259 (p < 0.00017)	0.1399 (p < 0.00017)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1337 (0.576)	0.2447 (p < 0.00017)	0.2589 (p < 0.00017)
WM_Task_2bk_Face_Acc_Nontarget	0.02428 (1)	0.1618 (0.002)	0.1728 (p < 0.00017)
WM_Task_2bk_Face_Acc_Target	0.1007 (0.394)	0.2438 (p < 0.00017)	0.2495 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.107 (0.024)	0.1423 (0.128)	0.1246 (0.39)
WM_Task_2bk_Face_Median_RT_Nontarget	0.04817 (0.236)	0.09678 (0.638)	0.0933 (0.784)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1136 (p < 0.00017)	0.2047 (p < 0.00017)	0.1777 (0.004)
WM_Task_2bk_Place_Acc	0.06649 (0.114)	0.2434 (p < 0.00017)	0.25 (p < 0.00017)
WM_Task_2bk_Place_Acc_Nontarget	0.04545 (0.326)	0.2422 (p < 0.00017)	0.2425 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.02334 (0.506)	0.1214 (0.01)	0.1365 (0.002)
WM_Task_2bk_Place_Median_RT	0.0573 (0.552)	0.108 (0.586)	0.1024 (0.434)
WM_Task_2bk_Place_Median_RT_Nontarget	0.03856 (0.87)	0.09788 (0.87)	0.08929 (0.838)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1077 (0.002)	0.2235 (p < 0.00017)	0.2211 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.09451 (0.018)	0.2184 (p < 0.00017)	0.2186 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Target	0.04932 (0.05)	0.1152 (0.158)	0.1342 (0.05)

WM_Task_2bk_Tool_Median_RT	0.149 (p < 0.00017)	0.1144 (0.006)	0.1084 (0.014)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1281 (0.002)	0.129 (0.028)	0.09904 (0.082)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1711 (p < 0.00017)	0.3168 (p < 0.00017)	0.3226 (p < 0.00017)
WM_Task_Median_RT	0.06911 (0.044)	0.1304 (0.082)	0.09735 (0.422)
ZygotySR	0 (1)	0 (1)	0 (1)

1200 volumes   All subjects			
	rfMRI_REST1	rfMRI_REST2	tfMRI_EMOTION
Age_in_Yrs	0.1535 (p < 0.00017)	0.1971 (p < 0.00017)	0.1856 (p < 0.00017)
AngAffect_Unadj	0.01884 (0.942)	0.0209 (0.782)	0.08341 (0.968)
AngAggr_Unadj	0.06934 (0.53)	0.1123 (0.3)	0.1253 (0.012)
AngHostil_Unadj	0.01554 (0.776)	0.02942 (0.98)	0.02479 (0.166)
ASR_Aggr_Raw	0.01164 (0.744)	0.04025 (0.93)	0.09411 (0.302)
ASR_Aggr_T	0.01973 (0.772)	0.0281 (0.988)	0.09764 (0.13)
ASR_Anxd_Pct	0.03891 (0.384)	0.02766 (0.608)	0.09106 (0.062)
ASR_Anxd_Raw	0.03322 (0.194)	0.01441 (1)	0.08264 (0.676)
ASR_Attn_Raw	0.01486 (0.596)	0.1221 (0.968)	0.0452 (0.968)
ASR_Attn_T	0.03629 (0.156)	0.1929 (0.006)	0.05516 (0.858)
ASR_Crit_Raw	0.05395 (0.056)	0.02682 (0.938)	0.1026 (0.906)
ASR_Extn_Raw	0.08357 (0.08)	0.1238 (0.894)	0.09514 (0.044)
ASR_Extn_T	0.04487 (0.284)	0.1705 (0.198)	0.05909 (0.416)
ASR_Intn_Raw	0.05281 (0.168)	0.01239 (0.986)	0.1118 (0.182)
ASR_Intn_T	0.01959 (0.722)	0.01186 (0.956)	0.07122 (0.71)
ASR_Intr_Raw	0.0984 (0.392)	0.08316 (0.808)	0.1037 (0.066)
ASR_Intr_T	0.07411 (0.396)	0.06896 (0.896)	0.09594 (0.098)
ASR_Oth_Raw	0.02775 (0.028)	0.1011 (0.002)	0.05438 (0.682)

ASR_Rule_Raw	0.1244 (p < 0.00017)	0.07725 (0.67)	0.209 (p < 0.00017)
ASR_Rule_T	0.07478 (0.17)	0.0275 (0.994)	0.06869 (0.132)
ASR_Soma_Raw	0.05655 (0.462)	0.01331 (0.462)	0.2094 (p < 0.00017)
ASR_Soma_T	0.06407 (0.546)	0.0147 (0.75)	0.2044 (p < 0.00017)
ASR_TAO_Sum	0.02397 (0.432)	0.09497 (0.384)	0.0595 (0.966)
ASR_Thot_Raw	0.0159 (0.66)	0.1127 (0.824)	0.04308 (1)
ASR_Thot_T	0.0359 (0.398)	0.05177 (0.568)	0.05526 (0.958)
ASR_Totp_Raw	0.01465 (0.306)	0.06237 (0.978)	0.08276 (0.8)
ASR_Totp_T	0.006116 (0.518)	0.09237 (0.95)	0.07659 (0.88)
ASR_Witd_Raw	0.03422 (0.328)	0.06618 (0.002)	0.07705 (0.592)
ASR_Witd_T	0.03298 (0.378)	0.03493 (0.48)	0.05247 (0.76)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1374 (0.01)	0.09934 (0.098)	0.1629 (0.018)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.09577 (0.006)	0.09507 (0.126)	0.1258 (0.002)
BMI	0.09228 (p < 0.00017)	0.1888 (p < 0.00017)	0.279 (p < 0.00017)
BPDiastolic	0.08182 (0.154)	0.1241 (p < 0.00017)	0.009183 (0.98)
BPSystolic	0.09229 (0.004)	0.1821 (p < 0.00017)	0.1584 (p < 0.00017)
CardSort_AgeAdj	0.09826 (0.094)	0.2056 (p < 0.00017)	0.05314 (0.992)
CardSort_Unadj	0.1654 (p < 0.00017)	0.2663 (p < 0.00017)	0.09127 (0.77)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)

CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.074 (0.076)	0.09892 (0.054)	0.2081 (0.002)
DDisc_AUC_40K	0.05712 (0.11)	0.06275 (0.136)	0.08476 (0.076)
DDisc_SV_10yr_200	0.06927 (0.182)	0.1277 (0.888)	0.1172 (0.018)
DDisc_SV_10yr_40K	0.1092 (0.002)	0.09429 (0.008)	0.04961 (0.946)
DDisc_SV_1mo_200	0.0596 (0.934)	0.03692 (0.576)	0.04662 (0.3)
DDisc_SV_1mo_40K	0.008458 (0.216)	0.01064 (0.258)	0.05749 (0.816)
DDisc_SV_1yr_200	0.07966 (0.05)	0.1242 (p < 0.00017)	0.1613 (p < 0.00017)
DDisc_SV_1yr_40K	0.07539 (0.014)	0.09355 (0.088)	0.05202 (0.644)
DDisc_SV_3yr_200	0.09824 (0.002)	0.04711 (0.234)	0.1482 (0.002)
DDisc_SV_3yr_40K	0.07146 (0.342)	0.08429 (0.198)	0.1059 (0.052)
DDisc_SV_5yr_200	0.04449 (0.366)	0.1024 (0.412)	0.1634 (0.024)
DDisc_SV_5yr_40K	0.1178 (0.006)	0.04137 (0.544)	0.1322 (0.002)
DDisc_SV_6mo_200	0.01544 (0.454)	0.1199 (p < 0.00017)	0.08482 (0.262)
DDisc_SV_6mo_40K	0.1437 (p < 0.00017)	0.08338 (p < 0.00017)	0.09303 (0.026)
Dexterity_AgeAdj	0.1535 (0.06)	0.06438 (0.536)	0.01972 (0.23)
Dexterity_Unadj	0.1213 (0.19)	0.05896 (0.746)	0.02564 (0.22)
DSM_Adh_Raw	0.0346 (0.54)	0.09003 (0.902)	0.03405 (0.856)
DSM_Adh_T	0.02987 (0.3)	0.08168 (0.22)	0.03139 (0.946)
DSM_Antis_Raw	0.05742 (0.054)	0.1317 (0.026)	0.2097 (p < 0.00017)
DSM_Antis_T	0.05494 (0.192)	0.07018 (0.194)	0.1302 (0.004)
DSM_Anxi_Raw	0.07046 (0.008)	0.1519 (0.016)	0.08162 (0.908)
DSM_Anxi_T	0.03536 (0.588)	0.07631 (0.388)	0.1107 (0.12)
DSM_Avoid_Raw	0.0185 (0.78)	0.03168 (0.298)	0.0396 (0.828)
DSM_Avoid_T	0.04653 (0.196)	0.03757 (0.3)	0.05298 (0.514)



DSM_Depr_Raw	0.04827 (0.872)	0.009028 (0.984)	0.07431 (0.472)
DSM_Depr_T	0.0329 (0.714)	0.009994 (0.962)	0.08348 (0.028)
DSM_Hype_Raw	0.05361 (0.084)	0.1137 (p < 0.00017)	0.05662 (0.08)
DSM_Inat_Raw	0.01404 (0.816)	0.04311 (1)	0.03075 (0.998)
DSM_Somp_Raw	0.08576 (0.528)	0.05218 (0.174)	0.1194 (0.014)
DSM_Somp_T	0.06504 (0.834)	0.06255 (0.2)	0.1099 (0.002)
Emotion_Task_Acc	0.03124 (0.68)	0.09583 (0.008)	0.1468 (p < 0.00017)
Emotion_Task_Face_Acc	0.09265 (0.072)	0.1112 (0.108)	0.05115 (0.284)
Emotion_Task_Face_Median_RT	0.1018 (0.198)	0.04563 (0.374)	0.07441 (0.294)
Emotion_Task_Median_RT	0.1073 (0.44)	0.05639 (0.064)	0.1342 (0.148)
Emotion_Task_Shape_Acc	0.07046 (0.882)	0.1846 (0.014)	0.1736 (0.002)
Emotion_Task_Shape_Median_RT	0.09393 (0.922)	0.0638 (0.096)	0.2209 (p < 0.00017)
EmotSupp_Unadj	0.1444 (p < 0.00017)	0.07041 (0.196)	0.04005 (0.424)
Endurance_AgeAdj	0.1104 (p < 0.00017)	0.08246 (0.296)	0.09466 (0.026)
Endurance_Unadj	0.129 (p < 0.00017)	0.0799 (0.26)	0.1019 (p < 0.00017)
ER40ANG	0.01443 (0.696)	0.02608 (0.896)	0.05797 (0.82)
ER40FEAR	0.1108 (p < 0.00017)	0.2078 (p < 0.00017)	0.01741 (0.98)
ER40NOE	0.07654 (0.578)	0.04927 (0.998)	0.06763 (0.748)
ER40SAD	0.0007617 (0.96)	0.0184 (1)	0.01094 (0.978)
ER40_CRT	0.03731 (0.546)	0.02406 (0.892)	0.02998 (0.99)
ER40_CR	0.04726 (0.624)	0.06908 (0.444)	0.04287 (0.864)
EVA_Denom	0.05712 (p < 0.00017)	0.131 (p < 0.00017)	0.07957 (0.928)
FearAffect_Unadj	0.06143 (0.084)	0.0382 (0.378)	0.1011 (0.106)
FearSomat_Unadj	0.1101 (0.03)	0.1465 (p < 0.00017)	0.05319 (0.098)
Flanker_AgeAdj	0.103 (0.052)	0.09345 (0.43)	0.02435 (0.708)

Flanker_Unadj	0.09114 (0.062)	0.1361 (0.224)	0.02738 (0.488)
Friendship_Unadj	0.01052 (0.598)	0.03958 (0.36)	0.1051 (0.258)
GaitSpeed_Comp	0.1189 (0.008)	0.02079 (0.876)	0.07739 (0.994)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.05381 (0.142)	0.0577 (0.034)	0.06592 (0.012)
Gambling_Task_Perc_Larger	0.08452 (0.006)	0.01351 (1)	0.05115 (0.552)
Gambling_Task_Perc_Smaller	0.085 (0.012)	0.01229 (1)	0.05657 (0.506)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.08152 (0.022)	0.1293 (0.004)	0.08237 (0.004)
Gambling_Task_Punish_Perc_Larger	0.1136 (0.014)	0.06662 (0.986)	0.03182 (0.752)
Gambling_Task_Punish_Perc_Smaller	0.1043 (0.036)	0.06393 (0.99)	0.02226 (0.87)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.01825 (0.648)	0.04921 (0.706)	0.03698 (0.21)
Gambling_Task_Reward_Perc_Smaller	0.0114 (0.786)	0.04299 (0.796)	0.03357 (0.236)
Handedness	0.04932 (0.482)	0.09679 (0.056)	0.0615 (0.336)
Height	0.3259 (p < 0.00017)	0.2429 (p < 0.00017)	0.4185 (p < 0.00017)
InstruSupp_Unadj	0.05629 (0.034)	0.03598 (0.56)	0.06946 (0.274)
IWRD_RTC	0.02961 (0.366)	0.0247 (0.72)	0.009147 (0.984)
IWRD_TOT	0.02982 (0.61)	0.06475 (0.012)	0.09447 (0.006)
Language_Task_Acc	0.134 (0.372)	0.1408 (0.056)	0.1989 (p < 0.00017)
Language_Task_Math_Acc	0.1038 (0.024)	0.03919 (0.474)	0.1765 (0.016)
Language_Task_Math_Avg_Difficulty_Level	0.1167 (0.008)	0.1914 (p < 0.00017)	0.07813 (0.082)
Language_Task_Math_Median_RT	0.06971 (0.08)	0.09845 (0.938)	0.02352 (0.984)
Language_Task_Median_RT	0.1201 (p < 0.00017)	0.1499 (0.302)	0.001578 (0.988)

Language_Task_Story_Acc	0.09675 (0.304)	0.06578 (0.32)	0.1103 (0.134)
Language_Task_Story_Avg_Difficulty_Level	0.1383 (p < 0.00017)	0.08547 (0.046)	0.343 (p < 0.00017)
Language_Task_Story_Median_RT	0.1237 (p < 0.00017)	0.1506 (0.002)	0.007796 (0.99)
LifeSatisf_Unadj	0.06848 (0.686)	0.1378 (0.004)	0.1722 (0.002)
ListSort_AgeAdj	0.2077 (0.006)	0.1699 (p < 0.00017)	0.06247 (0.182)
ListSort_Unadj	0.2149 (p < 0.00017)	0.1906 (p < 0.00017)	0.06093 (0.36)
Loneliness_Unadj	0.02811 (0.156)	0.06846 (0.292)	0.1423 (p < 0.00017)
Mars_Errs	0.1116 (0.096)	0.06497 (0.064)	0.02359 (0.778)
Mars_Final	0.08638 (0.006)	0.1096 (0.06)	0.09076 (0.02)
Mars_Log_Score	0.1083 (0.002)	0.1429 (p < 0.00017)	0.1202 (0.004)
MeanPurp_Unadj	0.06736 (0.704)	0.09838 (0.17)	0.03396 (0.664)
MMSE_Score	0.1151 (0.028)	0.05625 (0.414)	0.09867 (0.048)
Noise_Comp	0.03968 (0.904)	0.09962 (0.026)	0.02038 (0.972)
Num_Days_Drank_7days	0.1474 (0.002)	0.107 (0.004)	0.1534 (0.018)
Num_Days_Used_Any_Tobacco_7days	0 (1)	0 (1)	0.092 (0.086)
Odor_AgeAdj	0.0119 (0.538)	0.08445 (0.026)	0.1355 (p < 0.00017)
Odor_Unadj	0.006168 (0.71)	0.1099 (0.006)	0.1276 (0.008)
PainIntens_RawScore	0.04958 (0.308)	0.01038 (0.384)	0.02585 (0.066)
PainInterf_Tscore	0.06438 (0.824)	0.1118 (0.014)	0.1251 (0.004)
PercHostil_Unadj	0.04128 (0.154)	0.00941 (0.984)	0.02117 (0.992)
PercReject_Unadj	0.02207 (0.67)	0.08457 (0.002)	0.03894 (0.068)
PercStress_Unadj	0.02517 (0.63)	0.07096 (0.816)	0.1143 (0.358)
PicSeq_AgeAdj	0.07288 (0.002)	0.08296 (0.004)	0.0342 (0.6)
PicSeq_Unadj	0.07135 (0.006)	0.07776 (0.01)	0.0304 (0.784)
PicVocab_AgeAdj	0.05183 (0.108)	0.02269 (0.312)	0.2287 (p < 0.00017)
PicVocab_Unadj	0.04 (0.256)	0.01216 (0.562)	0.2069 (p < 0.00017)

PMAT24_A_CR	0.01532 (0.996)	0.09459 (0.01)	0.1617 (0.01)
PMAT24_A_RTCR	0.05964 (0.11)	0.08994 (0.008)	0.1333 (0.24)
PMAT24_A_SI	0.02575 (1)	0.1096 (0.016)	0.09821 (0.67)
PosAffect_Unadj	0.04949 (0.346)	0.04172 (0.174)	0.05885 (0.524)
ProcSpeed_AgeAdj	0.02709 (1)	0.0197 (0.674)	0.04986 (0.35)
ProcSpeed_Unadj	0.01733 (1)	0.02135 (0.852)	0.06581 (0.106)
PSQI_AmtSleep	0.101 (0.054)	0.0616 (0.016)	0.0227 (1)
PSQI_BadDream	0.02566 (0.168)	0.05428 (0.582)	0.01156 (0.816)
PSQI_Bathroom	0.1888 (p < 0.00017)	0.08969 (0.532)	0.0314 (0.884)
PSQI_BedPtnrRmate	0.05192 (0.866)	0.08694 (0.08)	0.08163 (0.208)
PSQI_BedTime	0.166 (p < 0.00017)	0.07312 (0.7)	0.1453 (0.006)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.1333 (0.17)	0.03458 (0.68)	0.08303 (0.18)
PSQI_Comp2	0.07189 (0.172)	0.02252 (0.74)	0.03453 (0.466)
PSQI_Comp3	0.07171 (0.096)	0.06446 (0.474)	0.04549 (0.966)
PSQI_Comp4	0 (1)	0.01827 (0.038)	0.09128 (0.674)
PSQI_Comp5	0.02123 (0.354)	0.007257 (0.522)	0.08334 (0.288)
PSQI_Comp6	0 (1)	0 (1)	0.01363 (0.262)
PSQI_Comp7	0.04927 (0.466)	0.02337 (0.664)	0.04354 (1)
PSQI_DayEnthusiasm	0.07218 (0.626)	0.01518 (0.87)	0.02253 (1)
PSQI_DayStayAwake	0 (1)	0 (1)	0.06347 (0.48)
PSQI_GetUpTime	0.07793 (0.01)	0.1787 (0.04)	0.1311 (p < 0.00017)
PSQI_Latency30Min	0.007199 (0.788)	0.01686 (0.488)	0.007333 (0.974)
PSQI_Min2Asleep	0.02664 (0.676)	0.06582 (0.556)	0.06583 (0.638)
PSQI_Other	0.01099 (0.714)	0.0428 (0.874)	0.02954 (0.93)
PSQI_Pain	0 (1)	0 (1)	0.03775 (0.412)
PSQI_Quality	0.1328 (0.144)	0.03437 (0.724)	0.07214 (0.318)

PSQI_Score	0.01758 (1)	0.01305 (0.748)	0.06167 (0.748)
PSQI_SleepMeds	0 (1)	0 (1)	0.0182 (0.262)
PSQI_Snore	0 (1)	0 (1)	0.00525 (0.026)
PSQI_TooCold	0.04129 (0.238)	0.1013 (0.098)	0.1041 (0.172)
PSQI_TooHot	0.05113 (0.606)	0.1591 (0.002)	0.06507 (0.024)
PSQI_WakeUp	0.05964 (0.124)	0.01072 (0.896)	0.07465 (0.024)
Race	0 (1)	0 (1)	0.1519 (0.008)
ReadEng_AgeAdj	0.1145 (0.01)	0.08367 (0.184)	0.1879 (p < 0.00017)
ReadEng_Unadj	0.108 (0.012)	0.06963 (0.266)	0.1687 (p < 0.00017)
Relational_Task_Acc	0.09744 (0.304)	0.1385 (0.002)	0.1324 (0.358)
Relational_Task_Match_Acc	0.069 (0.81)	0.07003 (0.382)	0.2028 (p < 0.00017)
Relational_Task_Match_Median_RT	0.08854 (p < 0.00017)	0.06562 (0.256)	0.1478 (0.002)
Relational_Task_Median_RT	0.07091 (0.002)	0.1051 (0.09)	0.07673 (p < 0.00017)
Relational_Task_Rel_Acc	0.09557 (0.65)	0.135 (0.006)	0.06679 (0.916)
Relational_Task_Rel_Median_RT	0.0503 (0.188)	0.1085 (p < 0.00017)	0.04582 (0.24)
Sadness_Unadj	0.05528 (0.162)	0.04897 (0.852)	0.08036 (0.044)
SCPT_FN	0.04999 (0.332)	0.0581 (0.47)	0.01249 (0.764)
SCPT_FP	0.02079 (0.632)	0.03257 (0.566)	0.1086 (0.122)
SCPT_LRNR	0.01689 (0.958)	0.1024 (0.454)	0.04014 (0.672)
SCPT_SEN	0.04616 (0.396)	0.05446 (0.462)	0.01284 (0.778)
SCPT_SPEC	0.02112 (0.648)	0.02788 (0.652)	0.1117 (0.074)
SCPT_TN	0.02736 (0.558)	0.02605 (0.688)	0.1141 (0.058)
SCPT_TPRT	0.01919 (0.67)	0.0644 (0.102)	0.01096 (0.992)
SCPT_TP	0.05763 (0.25)	0.05492 (0.424)	0.01478 (0.75)
SelfEff_Unadj	0.0599 (0.866)	0.1061 (0.98)	0.11 (0.114)
Social_Task_Perc_Random	0.1036 (0.016)	0.0388 (0.886)	0.05536 (0.604)

Social_Task_Perc_TOM	0.04255 (0.132)	0.02489 (0.064)	0.06814 (0.452)
Social_Task_Perc_Unsure	0.1216 (0.018)	0.1271 (0.042)	0.1525 (0.022)
Social_Task_Random_Perc_Random	0.0827 (0.12)	0.04788 (0.996)	0.06196 (0.408)
Social_Task_Random_Perc_TOM	0 (1)	0 (1)	0.03034 (0.086)
Social_Task_Random_Perc_Unsure	0.06768 (0.138)	0.1034 (0.786)	0.02729 (0.936)
Social_Task_TOM_Median_RT_TOM	0.08134 (0.118)	0.03801 (0.5)	0.05919 (0.21)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.03305 (0.458)	0.02159 (0.364)	0.07649 (0.022)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.04364 (0.024)
SSAGA_Alc_D4_Dp_Sx	0.08848 (0.148)	0.07349 (0.696)	0.1464 (p < 0.00017)
SSAGA_BMICatHeaviest	0.08689 (0.306)	0.2291 (p < 0.00017)	0.1821 (0.002)
SSAGA_BMICat	0.05035 (0.748)	0.1895 (0.004)	0.2585 (p < 0.00017)
SSAGA_ChildhoodConduct	0.07185 (0.368)	0.1311 (0.004)	0.1241 (0.004)
SSAGA_Depressive_Sx	0.04743 (0.208)	0.04589 (0.024)	0.09974 (0.228)
SSAGA_Educ	0.01526 (0.928)	0.06283 (0.176)	0.2269 (p < 0.00017)
SSAGA_Income	0.02076 (0.112)	0.1193 (0.01)	0.06825 (0.198)
SSAGA_Mj_Times_Used	0.1115 (0.006)	0.09185 (0.172)	0.09556 (0.072)
SSAGA_TB_Smoking_History	0.08532 (p < 0.00017)	0.09191 (0.49)	0.07442 (0.002)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0.04227 (0.008)
SSAGA_Times_Used_Illicits	0.01221 (0.016)	0.02257 (0.008)	0.1529 (p < 0.00017)
Strength_AgeAdj	0.3169 (p < 0.00017)	0.2881 (p < 0.00017)	0.4383 (p < 0.00017)
Strength_Unadj	0.2995 (p < 0.00017)	0.2759 (p < 0.00017)	0.4492 (p < 0.00017)
Taste_AgeAdj	0.07723 (0.894)	0.05489 (0.864)	0.0127 (0.802)
Taste_Unadj	0.08416 (0.836)	0.04976 (0.81)	0.01494 (0.798)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)

Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.1463 (p < 0.00017)	0.1434 (p < 0.00017)	0.1977 (0.002)
VSPLOT_CRTE	0.07232 (0.014)	0.04105 (0.454)	0.02174 (0.77)
VSPLOT_OFF	0.2387 (p < 0.00017)	0.2007 (p < 0.00017)	0.1723 (p < 0.00017)
VSPLOT_TC	0.172 (p < 0.00017)	0.08986 (p < 0.00017)	0.1761 (p < 0.00017)
Weight	0.2505 (p < 0.00017)	0.2811 (p < 0.00017)	0.3755 (p < 0.00017)
WM_Task_Obk_Acc	0.07127 (0.134)	0.03649 (0.058)	0.05747 (0.514)
WM_Task_Obk_Body_Acc	0.02332 (0.99)	0.01564 (0.826)	0.05502 (0.212)
WM_Task_Obk_Body_Acc_Nontarget	0.02016 (0.932)	0.03559 (0.644)	0.07281 (0.066)
WM_Task_Obk_Body_Acc_Target	0.01718 (0.91)	0.03823 (0.942)	0.02698 (0.402)
WM_Task_Obk_Body_Median_RT	0.05467 (0.748)	0.04674 (0.45)	0.06985 (0.992)
WM_Task_Obk_Body_Median_RT_Nontarget	0.06365 (0.602)	0.04864 (0.272)	0.07955 (0.984)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.0862 (0.132)	0.05944 (0.256)	0.037 (0.818)
WM_Task_Obk_Face_ACC_Nontarget	0.09283 (0.296)	0.07321 (0.354)	0.03674 (0.898)
WM_Task_Obk_Face_Acc_Target	0.05113 (0.538)	0.03602 (0.32)	0.05492 (0.33)
WM_Task_Obk_Face_Median_RT	0.0468 (0.434)	0.02325 (0.104)	0.0379 (0.982)
WM_Task_Obk_Face_Median_RT_Nontarget	0.0374 (0.474)	0.02056 (0.26)	0.01296 (0.998)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.07176 (0.074)	0.03221 (0.652)	0.04876 (0.964)
WM_Task_Obk_Place_Acc	0.02539 (0.5)	0.0638 (0.318)	0.05379 (0.774)
WM_Task_Obk_Place_Acc_Nontarget	0.02155 (0.19)	0.03619 (0.328)	0.04957 (0.506)
WM_Task_Obk_Place_Acc_Target	0.02253 (0.304)	0.04324 (0.28)	0.0376 (0.912)
WM_Task_Obk_Place_Median_RT	0.1144 (0.01)	0.02127 (0.976)	0.01261 (1)
WM_Task_Obk_Place_Median_RT_Nontarget	0.1354 (0.006)	0.02208 (0.996)	0.006512 (1)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)

WM_Task_0bk_Tool_Acc	0.1265 (p < 0.00017)	0.04694 (0.1)	0.1005 (0.054)
WM_Task_0bk_Tool_Acc_Nontarget	0.02197 (0.284)	0.008187 (0.258)	0.1003 (0.586)
WM_Task_0bk_Tool_Acc_Target	0.09747 (p < 0.00017)	0.04576 (0.116)	0.0601 (0.286)
WM_Task_0bk_Tool_Median_RT	0.0437 (0.14)	0.05774 (0.192)	0.04487 (0.372)
WM_Task_0bk_Tool_Median_RT_Nontarget	0.04783 (0.088)	0.05383 (0.196)	0.04131 (0.584)
WM_Task_0bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.0949 (0.004)	0.1135 (0.002)	0.2308 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.1024 (0.78)	0.07107 (0.53)	0.1915 (p < 0.00017)
WM_Task_2bk_Body_Acc_Nontarget	0.05563 (0.472)	0.06214 (0.228)	0.1635 (0.004)
WM_Task_2bk_Body_Acc_Target	0.2264 (0.006)	0.05337 (0.57)	0.1027 (0.308)
WM_Task_2bk_Body_Median_RT	0.01394 (0.49)	0.02684 (0.756)	0.04768 (0.856)
WM_Task_2bk_Body_Median_RT_Nontarget	0.01014 (0.568)	0.01723 (0.824)	0.09504 (0.62)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1382 (0.508)	0.1267 (0.05)	0.1555 (p < 0.00017)
WM_Task_2bk_Face_Acc_Nontarget	0.03356 (0.94)	0.01016 (1)	0.09777 (0.022)
WM_Task_2bk_Face_Acc_Target	0.09302 (1)	0.1496 (0.14)	0.117 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.1051 (0.05)	0.1023 (0.264)	0.06288 (0.976)
WM_Task_2bk_Face_Median_RT_Nontarget	0.08298 (0.082)	0.0747 (0.35)	0.0351 (0.998)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1221 (0.002)	0.1058 (0.094)	0.0721 (0.968)
WM_Task_2bk_Place_Acc	0.04235 (0.11)	0.06042 (0.568)	0.09267 (p < 0.00017)
WM_Task_2bk_Place_Acc_Nontarget	0.04695 (0.324)	0.03869 (0.39)	0.2031 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.03145 (0.784)	0.04908 (0.166)	0.08725 (p < 0.00017)
WM_Task_2bk_Place_Median_RT	0.1175 (0.094)	0.03398 (0.964)	0.05256 (0.768)
WM_Task_2bk_Place_Median_RT_Nontarget	0.1091 (0.086)	0.01828 (0.996)	0.04589 (0.946)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1078 (0.002)	0.06909 (0.316)	0.112 (0.02)



WM_Task_2bk_Tool_Acc_Nontarget	0.08023 (p < 0.00017)	0.06488 (0.49)	0.05095 (0.734)
WM_Task_2bk_Tool_Acc_Target	0.06551 (0.222)	0.02172 (0.97)	0.08303 (0.032)
WM_Task_2bk_Tool_Median_RT	0.1637 (p < 0.00017)	0.1157 (0.018)	0.08214 (1)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1292 (0.016)	0.1119 (0.046)	0.05929 (0.998)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1252 (p < 0.00017)	0.1403 (p < 0.00017)	0.1819 (p < 0.00017)
WM_Task_Median_RT	0.08483 (0.03)	0.05382 (0.402)	0.06207 (1)
ZygotySR	0 (1)	0 (1)	0 (1)

1200 volumes   All subjects			
	tfMRI_GAMBLING	tfMRI_LANGUAGE	tfMRI_MOTOR
Age_in_Yrs	0.172 (p < 0.00017)	0.2351 (p < 0.00017)	0.1775 (0.134)
AngAffect_Unadj	0.04686 (0.96)	0.07003 (0.162)	0.03224 (0.418)
AngAggr_Unadj	0.08322 (0.048)	0.1939 (p < 0.00017)	0.01339 (0.202)
AngHostil_Unadj	0.03083 (0.996)	0.002575 (0.506)	0.02758 (0.986)
ASR_Aggr_Raw	0.08219 (0.316)	0.05817 (0.534)	0.08017 (0.294)
ASR_Aggr_T	0.08637 (0.566)	0.07438 (0.188)	0.05445 (0.584)
ASR_Anxd_Pct	0.05237 (0.936)	0.1326 (0.068)	0.1114 (0.006)
ASR_Anxd_Raw	0.0303 (0.952)	0.1277 (0.006)	0.1719 (p < 0.00017)
ASR_Attn_Raw	0.008605 (0.79)	0.02585 (0.998)	0.01314 (0.756)
ASR_Attn_T	0.03121 (0.248)	0.03036 (0.986)	0.02057 (0.72)
ASR_Crit_Raw	0.04966 (0.06)	0.03166 (0.56)	0.05011 (0.93)
ASR_Extn_Raw	0.09915 (0.004)	0.07138 (0.002)	0.1624 (p < 0.00017)
ASR_Extn_T	0.08255 (0.002)	0.04094 (0.106)	0.1571 (p < 0.00017)
ASR_Intn_Raw	0.05929 (0.828)	0.08771 (0.06)	0.1498 (0.002)
ASR_Intn_T	0.01848 (0.992)	0.06782 (0.122)	0.1364 (0.014)
ASR_Intr_Raw	0.09353 (0.002)	0.0314 (0.626)	0.1846 (p < 0.00017)
ASR_Intr_T	0.1131 (0.018)	0.02826 (0.722)	0.1667 (p < 0.00017)

ASR_Oth_Raw	0.06884 (0.348)	0.03872 (0.932)	0.09638 (0.002)
ASR_Rule_Raw	0.1133 (p < 0.00017)	0.04813 (0.128)	0.2066 (0.002)
ASR_Rule_T	0.06636 (0.052)	0.03292 (0.766)	0.1445 (0.046)
ASR_Soma_Raw	0.07027 (0.196)	0.106 (p < 0.00017)	0.04161 (0.71)
ASR_Soma_T	0.05105 (0.344)	0.1404 (p < 0.00017)	0.07287 (0.45)
ASR_TAO_Sum	0.05096 (0.25)	0.02301 (1)	0.04514 (0.418)
ASR_Thot_Raw	0.02512 (0.578)	0.01242 (0.414)	0.06628 (0.862)
ASR_Thot_T	0.05104 (0.13)	0.03192 (0.39)	0.08088 (0.758)
ASR_Totp_Raw	0.04387 (0.718)	0.0677 (0.206)	0.08295 (0.08)
ASR_Totp_T	0.03732 (0.676)	0.04905 (0.454)	0.06016 (0.146)
ASR_Witd_Raw	0.05312 (0.758)	0.03824 (0.768)	0.07934 (0.106)
ASR_Witd_T	0.05259 (0.582)	0.04889 (0.868)	0.08065 (0.144)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1715 (p < 0.00017)	0.1337 (0.04)	0.1218 (p < 0.00017)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.1109 (p < 0.00017)	0.08847 (0.728)	0.1433 (0.054)
BMI	0.2514 (p < 0.00017)	0.1083 (0.002)	0.3149 (p < 0.00017)
BPDiastolic	0.1549 (p < 0.00017)	0.1021 (p < 0.00017)	0.2401 (p < 0.00017)
BPSystolic	0.2458 (p < 0.00017)	0.2692 (p < 0.00017)	0.3298 (p < 0.00017)
CardSort_AgeAdj	0.01996 (0.614)	0.03597 (0.974)	0.1017 (p < 0.00017)
CardSort_Unadj	0.03907 (0.376)	0.05502 (0.992)	0.1334 (p < 0.00017)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)

CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.1612 (p < 0.00017)	0.1339 (p < 0.00017)	0.02725 (0.91)
DDisc_AUC_40K	0.1987 (p < 0.00017)	0.08941 (0.01)	0.04025 (0.664)
DDisc_SV_10yr_200	0.08793 (0.186)	0.1436 (0.004)	0.05034 (0.414)
DDisc_SV_10yr_40K	0.1355 (p < 0.00017)	0.1156 (p < 0.00017)	0.04802 (0.764)
DDisc_SV_1mo_200	0.0858 (0.006)	0.09876 (p < 0.00017)	0.06928 (0.89)
DDisc_SV_1mo_40K	0.07279 (0.002)	0.06101 (0.074)	0.08687 (0.968)
DDisc_SV_1yr_200	0.1778 (p < 0.00017)	0.1066 (0.008)	0.06789 (0.058)
DDisc_SV_1yr_40K	0.1621 (p < 0.00017)	0.04974 (0.014)	0.1158 (0.042)
DDisc_SV_3yr_200	0.1052 (p < 0.00017)	0.1133 (0.134)	0.0411 (0.93)
DDisc_SV_3yr_40K	0.1712 (p < 0.00017)	0.04166 (0.122)	0.04286 (0.522)
DDisc_SV_5yr_200	0.1814 (p < 0.00017)	0.1411 (p < 0.00017)	0.01214 (0.998)
DDisc_SV_5yr_40K	0.2018 (p < 0.00017)	0.09799 (0.002)	0.02422 (0.476)
DDisc_SV_6mo_200	0.07386 (p < 0.00017)	0.1302 (0.008)	0.03206 (0.994)
DDisc_SV_6mo_40K	0.06828 (p < 0.00017)	0.07872 (0.02)	0.05348 (0.698)
Dexterity_AgeAdj	0.2015 (0.012)	0.1089 (p < 0.00017)	0.107 (0.016)
Dexterity_Unadj	0.195 (0.04)	0.1406 (p < 0.00017)	0.1234 (0.002)
DSM_Adh_Raw	0.0261 (0.2)	0.04935 (0.768)	0.004961 (0.97)
DSM_Adh_T	0.02961 (0.178)	0.1063 (0.056)	0.01641 (0.986)
DSM_Antis_Raw	0.1105 (0.002)	0.1429 (0.002)	0.1531 (0.002)
DSM_Antis_T	0.1244 (0.004)	0.08057 (0.2)	0.08788 (0.166)
DSM_Anxi_Raw	0.02879 (0.814)	0.1427 (p < 0.00017)	0.1639 (p < 0.00017)
DSM_Anxi_T	0.01703 (0.902)	0.07387 (0.594)	0.1248 (p < 0.00017)
DSM_Avoid_Raw	0.01755 (1)	0.04969 (0.518)	0.1537 (p < 0.00017)

DSM_Avoid_T	0.02434 (0.99)	0.05831 (0.416)	0.09694 (0.036)
DSM_Depr_Raw	0.07552 (0.882)	0.08055 (0.528)	0.1142 (p < 0.00017)
DSM_Depr_T	0.06438 (0.762)	0.08584 (0.582)	0.1157 (p < 0.00017)
DSM_Hype_Raw	0.05905 (0.246)	0.0231 (0.578)	0.04517 (0.204)
DSM_Inat_Raw	0.01068 (0.612)	0.06239 (0.994)	5.029E-06 (0.994)
DSM_Somp_Raw	0.1002 (0.182)	0.1074 (p < 0.00017)	0.09823 (0.89)
DSM_Somp_T	0.05722 (0.7)	0.09792 (0.006)	0.06084 (0.966)
Emotion_Task_Acc	0.06872 (0.07)	0.15 (p < 0.00017)	0.08889 (0.02)
Emotion_Task_Face_Acc	0.06276 (0.578)	0.07287 (0.824)	0.1218 (0.002)
Emotion_Task_Face_Median_RT	0.08746 (0.844)	0.1039 (0.372)	0.09428 (0.024)
Emotion_Task_Median_RT	0.1247 (0.576)	0.1563 (0.16)	0.122 (0.002)
Emotion_Task_Shape_Acc	0.04605 (0.28)	0.1316 (0.05)	0.07168 (0.524)
Emotion_Task_Shape_Median_RT	0.1104 (0.386)	0.1757 (0.212)	0.1319 (0.002)
EmotSupp_Unadj	0.01636 (0.94)	0.07775 (0.976)	0.04868 (0.35)
Endurance_AgeAdj	0.164 (0.002)	0.06738 (0.164)	0.1421 (p < 0.00017)
Endurance_Unadj	0.1792 (p < 0.00017)	0.09773 (0.018)	0.1446 (p < 0.00017)
ER40ANG	0.007873 (0.998)	0.1598 (0.004)	0.08788 (0.046)
ER40FEAR	0.03914 (0.85)	0.08032 (0.006)	0.09014 (0.726)
ER40NOE	0.0167 (0.998)	0.01029 (0.984)	0.1013 (0.502)
ER40SAD	0.006411 (0.988)	0.04607 (0.032)	0.04272 (0.83)
ER40_CRT	0.01381 (0.968)	0.06469 (0.196)	0.04593 (0.99)
ER40_CR	0.03236 (0.954)	0.08944 (0.078)	0.1455 (0.412)
EVA_Denom	0.07649 (0.028)	0.04071 (0.058)	0.05068 (0.554)
FearAffect_Unadj	0.06209 (0.018)	0.02517 (0.878)	0.1186 (p < 0.00017)
FearSomat_Unadj	0.02484 (0.968)	0.01481 (0.96)	0.1353 (p < 0.00017)
Flanker_AgeAdj	0.1472 (0.006)	0.0574 (0.918)	0.1581 (p < 0.00017)
Flanker_Unadj	0.1424 (0.002)	0.09903 (0.712)	0.1687 (p < 0.00017)

Friendship_Unadj	0.04027 (0.392)	0.04602 (1)	0.146 (p < 0.00017)
GaitSpeed_Comp	0.2255 (p < 0.00017)	0.1251 (0.056)	0.06223 (0.35)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.02725 (0.64)	0.131 (p < 0.00017)	0.1376 (0.106)
Gambling_Task_Perc_Larger	0.01854 (0.984)	0.04013 (0.562)	0.05968 (0.798)
Gambling_Task_Perc_Smaller	0.02184 (0.978)	0.0411 (0.548)	0.06551 (0.768)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.03875 (0.634)	0.1183 (p < 0.00017)	0.1608 (0.008)
Gambling_Task_Punish_Perc_Larger	0.0286 (0.934)	0.0484 (0.072)	0.003451 (0.962)
Gambling_Task_Punish_Perc_Smaller	0.02251 (0.968)	0.04019 (0.126)	0.002635 (0.982)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.07029 (0.492)	0.04993 (0.94)	0.09563 (0.438)
Gambling_Task_Reward_Perc_Smaller	0.06616 (0.592)	0.04645 (0.954)	0.09753 (0.358)
Handedness	0.163 (p < 0.00017)	0.09076 (0.038)	0.0216 (0.856)
Height	0.4131 (p < 0.00017)	0.3498 (p < 0.00017)	0.4619 (p < 0.00017)
InstruSupp_Unadj	0.05681 (0.198)	0.1063 (0.142)	0.1107 (0.014)
IWRD_RTC	0.0479 (0.258)	0.09369 (0.24)	0.05152 (0.254)
IWRD_TOT	0.01155 (0.822)	0.03228 (0.83)	0.03563 (0.95)
Language_Task_Acc	0.1288 (p < 0.00017)	0.2589 (p < 0.00017)	0.1501 (0.002)
Language_Task_Math_Acc	0.1804 (p < 0.00017)	0.2227 (0.086)	0.13 (0.086)
Language_Task_Math_Avg_Difficulty_Level	0.03503 (0.77)	0.2179 (p < 0.00017)	0.1177 (0.148)
Language_Task_Math_Median_RT	0.03073 (0.368)	0.03549 (0.612)	0.09549 (0.248)
Language_Task_Median_RT	0.04788 (0.29)	0.09199 (0.954)	0.1013 (0.024)
Language_Task_Story_Acc	0.1032 (0.024)	0.129 (0.022)	0.03902 (0.662)
Language_Task_Story_Avg_Difficulty_Level	0.1416 (0.008)	0.2911 (p < 0.00017)	0.1617 (p < 0.00017)

Language_Task_Story_Median_RT	0.0487 (0.966)	0.102 (0.99)	0.1735 (p < 0.00017)
LifeSatisf_Unadj	0.006162 (0.992)	0.04324 (0.236)	0.06505 (0.154)
ListSort_AgeAdj	0.155 (0.002)	0.09696 (0.044)	0.1169 (0.034)
ListSort_Unadj	0.159 (p < 0.00017)	0.1248 (0.036)	0.1444 (p < 0.00017)
Loneliness_Unadj	0.03654 (0.262)	0.1106 (0.006)	0.1409 (0.002)
Mars_Errs	0.01573 (0.488)	0.06601 (0.304)	0.05726 (0.09)
Mars_Final	0.1691 (0.106)	0.08322 (0.018)	0.09748 (0.006)
Mars_Log_Score	0.1338 (0.306)	0.06558 (0.116)	0.2049 (p < 0.00017)
MeanPurp_Unadj	0.04398 (0.952)	0.151 (0.138)	0.07824 (0.366)
MMSE_Score	0.08842 (0.22)	0.02423 (0.99)	0.02833 (0.14)
Noise_Comp	0.02223 (0.332)	0.02066 (0.98)	0.02274 (1)
Num_Days_Drank_7days	0.0727 (0.016)	0.08221 (0.57)	0.1146 (p < 0.00017)
Num_Days_Used_Any_Tobacco_7days	0.003711 (0.006)	0.003817 (0.048)	0.1729 (0.05)
Odor_AgeAdj	0.072 (0.788)	0.04293 (0.95)	0.1149 (0.01)
Odor_Unadj	0.06172 (0.922)	0.03484 (0.926)	0.1353 (0.002)
PainIntens_RawScore	0.03477 (0.994)	0.08661 (0.334)	0.09632 (0.006)
PainInterf_Tscore	0.0753 (0.488)	0.1114 (p < 0.00017)	0.1017 (0.002)
PercHostil_Unadj	0.01886 (0.756)	0.0793 (0.01)	0.03939 (0.992)
PercReject_Unadj	0.03118 (0.578)	0.03388 (0.948)	0.08925 (p < 0.00017)
PercStress_Unadj	0.02592 (0.872)	0.02195 (0.494)	0.1575 (0.004)
PicSeq_AgeAdj	0.07444 (0.144)	0.0549 (0.2)	0.0448 (0.43)
PicSeq_Unadj	0.08097 (0.124)	0.07504 (0.062)	0.05089 (0.312)
PicVocab_AgeAdj	0.1441 (p < 0.00017)	0.2561 (p < 0.00017)	0.2491 (p < 0.00017)
PicVocab_Unadj	0.08256 (0.002)	0.2092 (p < 0.00017)	0.2324 (p < 0.00017)
PMAT24_A_CR	0.1649 (p < 0.00017)	0.3 (p < 0.00017)	0.1951 (0.002)
PMAT24_A_RTcr	0.06911 (0.14)	0.1118 (0.284)	0.05788 (0.932)
PMAT24_A_Si	0.1139 (p < 0.00017)	0.2934 (p < 0.00017)	0.1689 (0.042)
PosAffect_Unadj	0.06911 (0.346)	0.1353 (0.002)	0.06054 (0.246)

ProcSpeed_AgeAdj	0.04875 (0.462)	0.1642 (p < 0.00017)	0.0172 (0.534)
ProcSpeed_Unadj	0.05242 (0.49)	0.189 (p < 0.00017)	0.02822 (0.332)
PSQI_AmtSleep	0.04205 (0.492)	0.07126 (0.182)	0.02566 (0.998)
PSQI_BadDream	0.02854 (0.164)	0.009869 (0.852)	0.07028 (0.268)
PSQI_Bathroom	0.03281 (0.952)	0.1366 (0.01)	0.02924 (0.044)
PSQI_BedPtnrRmate	0.1223 (p < 0.00017)	0.04266 (0.578)	0.1082 (0.006)
PSQI_BedTime	0.05738 (0.37)	0.04352 (0.904)	0.07454 (0.072)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.05219 (0.888)	0.1412 (0.356)	0.05591 (0.182)
PSQI_Comp2	0.04527 (0.804)	0.01194 (0.756)	0.008615 (0.298)
PSQI_Comp3	0.06033 (0.62)	0.07778 (0.054)	0.04793 (0.994)
PSQI_Comp4	0.008532 (0.348)	0.06553 (0.82)	0.1528 (0.318)
PSQI_Comp5	0.05287 (0.646)	0.01671 (0.652)	0.06124 (0.122)
PSQI_Comp6	0.002068 (p < 0.00017)	0 (1)	0 (1)
PSQI_Comp7	0.01761 (0.99)	0.02183 (0.496)	0.07751 (0.146)
PSQI_DayEnthusiasm	0.001824 (1)	0.03688 (0.24)	0.0794 (0.2)
PSQI_DayStayAwake	0.152 (0.002)	0.07514 (0.112)	0.0361 (0.896)
PSQI_GetUpTime	0.05209 (0.164)	0.1562 (0.238)	0.08129 (0.04)
PSQI_Latency30Min	0.03093 (0.858)	0.007759 (0.42)	0.01964 (0.47)
PSQI_Min2Asleep	0.09606 (0.002)	0.04475 (0.204)	0.03616 (0.366)
PSQI_Other	0.01552 (0.754)	0.01284 (0.386)	0.03047 (0.79)
PSQI_Pain	0.004064 (0.464)	0.1062 (0.368)	0.03981 (0.624)
PSQI_Quality	0.0509 (0.904)	0.1447 (0.312)	0.05253 (0.218)
PSQI_Score	0.06565 (0.276)	0.0416 (0.658)	0.02138 (0.95)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0.004963 (p < 0.00017)	0.006217 (0.004)	0.02478 (p < 0.00017)
PSQI_TooCold	0.06067 (0.286)	0.03047 (0.758)	0.0796 (0.092)
PSQI_TooHot	0.1051 (0.224)	0.01482 (0.924)	0.2764 (p < 0.00017)

PSQI_WakeUp	0.0519 (0.64)	0.03294 (0.698)	0.1463 (p < 0.00017)
Race	0.1283 (0.198)	0 (1)	0.06735 (0.024)
ReadEng_AgeAdj	0.123 (p < 0.00017)	0.1881 (p < 0.00017)	0.1257 (0.022)
ReadEng_Unadj	0.09893 (0.022)	0.1895 (p < 0.00017)	0.1214 (0.094)
Relational_Task_Acc	0.1024 (0.608)	0.2177 (p < 0.00017)	0.1438 (0.004)
Relational_Task_Match_Acc	0.06376 (0.796)	0.2473 (p < 0.00017)	0.09105 (0.192)
Relational_Task_Match_Median_RT	0.06158 (0.768)	0.1319 (p < 0.00017)	0.04234 (0.502)
Relational_Task_Median_RT	0.07321 (0.634)	0.05045 (0.754)	0.05359 (0.432)
Relational_Task_Rel_Acc	0.09269 (0.652)	0.1457 (p < 0.00017)	0.1165 (p < 0.00017)
Relational_Task_Rel_Median_RT	0.08943 (0.068)	0.0543 (0.962)	0.06227 (0.308)
Sadness_Unadj	0.03495 (0.992)	0.1248 (p < 0.00017)	0.1475 (p < 0.00017)
SCPT_FN	0.02558 (0.094)	0.03263 (0.578)	0.07665 (0.208)
SCPT_FP	0.08553 (0.016)	0.05074 (0.222)	0.1105 (0.004)
SCPT_LRNR	0.02696 (0.884)	0.05023 (0.76)	0.02709 (0.688)
SCPT_SEN	0.02427 (0.124)	0.03625 (0.524)	0.07854 (0.248)
SCPT_SPEC	0.06988 (0.054)	0.04726 (0.248)	0.1117 (p < 0.00017)
SCPT_TN	0.08217 (0.02)	0.04905 (0.23)	0.1045 (0.004)
SCPT_TPRT	0.0167 (0.586)	0.03105 (0.692)	0.1115 (0.304)
SCPT_TP	0.02289 (0.122)	0.04192 (0.424)	0.08475 (0.156)
SelfEff_Unadj	0.0617 (0.798)	0.07648 (0.118)	0.1127 (0.01)
Social_Task_Perc_Random	0.09785 (0.154)	0.04316 (0.438)	0.05564 (0.528)
Social_Task_Perc_TOM	0.08023 (0.572)	0.1057 (0.698)	0.158 (0.004)
Social_Task_Perc_Unsure	0.07479 (0.702)	0.05677 (0.038)	0.03273 (0.938)
Social_Task_Random_Perc_Random	0.03451 (0.85)	0.0783 (0.048)	0.04904 (0.1)
Social_Task_Random_Perc_TOM	0 (1)	0.01802 (0.002)	0.0621 (0.052)
Social_Task_Random_Perc_Unsure	0.04967 (0.818)	0.07773 (0.014)	0.04163 (0.318)
Social_Task_TOM_Median_RT_TOM	0.09423 (p < 0.00017)	0.06993 (0.256)	0.005366 (0.998)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)



Social_Task_TOM_Perc_TOM	0.08643 (0.46)	0.1923 (0.068)	0.1178 (0.086)
Social_Task_TOM_Perc_Unsure	0.005403 (0.034)	0 (1)	0.003616 (0.006)
SSAGA_Alc_D4_Dp_Sx	0.09158 (0.026)	0.1101 (0.004)	0.09382 (0.426)
SSAGA_BMICatHeaviest	0.2069 (p < 0.00017)	0.07722 (0.37)	0.1767 (0.06)
SSAGA_BMICat	0.1955 (0.024)	0.09612 (0.052)	0.2911 (p < 0.00017)
SSAGA_ChildhoodConduct	0.05918 (p < 0.00017)	0.1263 (p < 0.00017)	0.07463 (0.708)
SSAGA_Depressive_Sx	0.0922 (0.156)	0.07633 (0.094)	0.1729 (p < 0.00017)
SSAGA_Educ	0.07441 (0.002)	0.06794 (0.472)	0.05949 (0.028)
SSAGA_Income	0.05355 (0.03)	0.03033 (0.456)	0.06149 (0.958)
SSAGA_Mj_Times_Used	0.08787 (0.126)	0.03023 (0.53)	0.08127 (0.788)
SSAGA_TB_Smoking_History	0.1784 (p < 0.00017)	0.07971 (0.1)	0.04705 (0.952)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0.1512 (p < 0.00017)
SSAGA_Times_Used_Illicits	0.2698 (p < 0.00017)	0.05917 (0.424)	0.09653 (0.148)
Strength_AgeAdj	0.3988 (p < 0.00017)	0.4023 (p < 0.00017)	0.4411 (p < 0.00017)
Strength_Unadj	0.4099 (p < 0.00017)	0.4217 (p < 0.00017)	0.4698 (p < 0.00017)
Taste_AgeAdj	0.04252 (0.39)	0.08355 (0.242)	0.1046 (0.004)
Taste_Unadj	0.04681 (0.224)	0.08037 (0.226)	0.09677 (0.002)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.09616 (p < 0.00017)	0.1444 (0.256)	0.1417 (p < 0.00017)
VSPLOT_CRTE	0.04703 (0.02)	0.1003 (0.064)	0.08098 (0.006)
VSPLOT_OFF	0.102 (0.042)	0.1866 (p < 0.00017)	0.1294 (0.08)
VSPLOT_TC	0.04996 (0.442)	0.1229 (0.012)	0.1216 (0.08)
Weight	0.3581 (p < 0.00017)	0.2996 (p < 0.00017)	0.4398 (p < 0.00017)
WM_Task_Obk_Acc	0.04033 (0.892)	0.1351 (p < 0.00017)	0.07742 (0.484)

WM_Task_Obk_Body_Acc	0.08796 (0.782)	0.04901 (0.018)	0.06274 (0.996)
WM_Task_Obk_Body_Acc_Nontarget	0.1086 (0.874)	0.06404 (p < 0.00017)	0.05413 (0.676)
WM_Task_Obk_Body_Acc_Target	0.02467 (0.968)	0.04461 (0.18)	0.07496 (0.936)
WM_Task_Obk_Body_Median_RT	0.04782 (0.966)	0.07342 (0.94)	0.0313 (0.818)
WM_Task_Obk_Body_Median_RT_Nontarget	0.04285 (1)	0.07496 (0.956)	0.03918 (0.682)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.01728 (0.994)	0.1688 (0.128)	0.0873 (0.184)
WM_Task_Obk_Face_ACC_Nontarget	0.03505 (0.91)	0.1332 (0.792)	0.1055 (0.232)
WM_Task_Obk_Face_Acc_Target	0.02378 (0.9)	0.09066 (0.198)	0.02109 (0.654)
WM_Task_Obk_Face_Median_RT	0.04368 (0.91)	0.104 (0.048)	0.01211 (0.938)
WM_Task_Obk_Face_Median_RT_Nontarget	0.03561 (0.992)	0.1288 (0.032)	0.02892 (0.74)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.0478 (0.976)	0.1602 (0.01)	0.03428 (0.59)
WM_Task_Obk_Place_Acc	0.03652 (0.444)	0.0943 (p < 0.00017)	0.03618 (0.198)
WM_Task_Obk_Place_Acc_Nontarget	0.03696 (0.072)	0.09749 (p < 0.00017)	0.09278 (0.11)
WM_Task_Obk_Place_Acc_Target	0.01503 (0.94)	0.1034 (p < 0.00017)	0.02951 (0.434)
WM_Task_Obk_Place_Median_RT	0.02475 (0.9)	0.1166 (0.424)	0.04368 (0.176)
WM_Task_Obk_Place_Median_RT_Nontarget	0.03851 (0.816)	0.09534 (0.666)	0.05982 (0.03)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.05201 (0.154)	0.1238 (p < 0.00017)	0.03575 (0.208)
WM_Task_Obk_Tool_Acc_Nontarget	0.03517 (0.462)	0.09831 (0.008)	0.04412 (0.2)
WM_Task_Obk_Tool_Acc_Target	0.09759 (0.044)	0.1249 (0.002)	0.009692 (0.994)
WM_Task_Obk_Tool_Median_RT	0.04955 (0.986)	0.1752 (0.002)	0.04283 (0.484)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.04451 (1)	0.1787 (0.014)	0.0611 (0.398)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.2155 (p < 0.00017)	0.2935 (p < 0.00017)	0.1709 (p < 0.00017)

WM_Task_2bk_Body_Acc	0.141 (p < 0.00017)	0.2749 (p < 0.00017)	0.1173 (0.026)
WM_Task_2bk_Body_Acc_Nontarget	0.1039 (p < 0.00017)	0.2214 (p < 0.00017)	0.122 (0.104)
WM_Task_2bk_Body_Acc_Target	0.1107 (0.108)	0.188 (p < 0.00017)	0.09965 (0.234)
WM_Task_2bk_Body_Median_RT	0.08611 (0.968)	0.1647 (p < 0.00017)	0.03102 (0.092)
WM_Task_2bk_Body_Median_RT_Nontarget	0.1049 (0.966)	0.08752 (0.122)	0.03951 (0.268)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1963 (0.006)	0.2741 (p < 0.00017)	0.08406 (p < 0.00017)
WM_Task_2bk_Face_Acc_Nontarget	0.1541 (0.316)	0.1727 (p < 0.00017)	0.1074 (0.004)
WM_Task_2bk_Face_Acc_Target	0.1155 (p < 0.00017)	0.2759 (p < 0.00017)	0.1561 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.0485 (0.95)	0.07691 (0.454)	0.03403 (0.86)
WM_Task_2bk_Face_Median_RT_Nontarget	0.0572 (0.966)	0.04045 (0.752)	0.02553 (0.934)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.08148 (0.93)	0.1444 (0.07)	0.08549 (0.03)
WM_Task_2bk_Place_Acc	0.1514 (0.002)	0.144 (0.026)	0.0533 (0.594)
WM_Task_2bk_Place_Acc_Nontarget	0.09751 (0.002)	0.1319 (0.02)	0.01639 (0.924)
WM_Task_2bk_Place_Acc_Target	0.09476 (0.398)	0.1236 (0.248)	0.1092 (0.044)
WM_Task_2bk_Place_Median_RT	0.02425 (0.992)	0.058 (0.97)	0.05949 (0.374)
WM_Task_2bk_Place_Median_RT_Nontarget	0.04664 (0.906)	0.0627 (0.958)	0.05065 (0.688)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.123 (p < 0.00017)	0.1015 (0.126)	0.09212 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.1504 (p < 0.00017)	0.09071 (0.44)	0.07316 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Target	0.05107 (0.21)	0.11 (p < 0.00017)	0.05211 (0.264)
WM_Task_2bk_Tool_Median_RT	0.0649 (0.786)	0.1427 (0.102)	0.08697 (0.012)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.08382 (0.608)	0.1341 (0.052)	0.07431 (0.304)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)

WM_Task_Acc	0.1316 (0.008)	0.318 (p < 0.00017)	0.2476 (p < 0.00017)
WM_Task_Median_RT	0.05005 (0.994)	0.1406 (0.16)	0.05667 (0.096)
ZygotySR	0 (1)	0 (1)	0 (1)

1200 volumes   All subjects			
	tfMRI_RELATION		
	AL	tfMRI_SOCIAL	tfMRI_WM
Age_in_Yrs	0.1268 (0.024)	0.314 (p < 0.00017)	0.1542 (p < 0.00017)
AngAffect_Unadj	0.01788 (1)	0.0613 (0.034)	0.06739 (0.008)
AngAggr_Unadj	0.08296 (0.38)	0.03792 (0.34)	0.0948 (p < 0.00017)
AngHostil_Unadj	0.09055 (0.044)	0.02401 (0.334)	0.1198 (0.392)
ASR_Aggr_Raw	0.06771 (0.834)	0.05402 (0.328)	0.04085 (0.09)
ASR_Aggr_T	0.0677 (0.784)	0.05481 (0.244)	0.0423 (0.142)
ASR_Anxd_Pct	0.04121 (0.966)	0.02529 (0.942)	0.09533 (0.002)
ASR_Anxd_Raw	0.0221 (0.994)	0.0184 (0.966)	0.1195 (p < 0.00017)
ASR_Attn_Raw	0.02813 (0.69)	0.09776 (0.068)	0.009485 (0.86)
ASR_Attn_T	0.07094 (0.126)	0.147 (0.064)	0.05852 (0.418)
ASR_Crit_Raw	0.02754 (0.992)	0.1659 (0.034)	0.04963 (0.582)
ASR_Extn_Raw	0.09204 (0.22)	0.2026 (0.026)	0.08049 (p < 0.00017)
ASR_Extn_T	0.09487 (0.132)	0.1603 (0.282)	0.06157 (p < 0.00017)
ASR_Intn_Raw	0.007091 (0.996)	0.03178 (0.988)	0.0908 (0.002)
ASR_Intn_T	0.003123 (1)	0.03394 (0.996)	0.09386 (0.006)
ASR_Intr_Raw	0.05343 (0.918)	0.04391 (0.62)	0.07559 (0.002)
ASR_Intr_T	0.04798 (0.662)	0.07551 (0.492)	0.08774 (p < 0.00017)
ASR_Oth_Raw	0.02528 (0.638)	0.0172 (1)	0.05577 (0.596)
ASR_Rule_Raw	0.2054 (p < 0.00017)	0.2825 (p < 0.00017)	0.1768 (p < 0.00017)
ASR_Rule_T	0.1764 (p < 0.00017)	0.2015 (p < 0.00017)	0.09393 (0.058)

ASR_Soma_Raw	0.09277 (0.008)	0.04932 (0.48)	0.06697 (p < 0.00017)
ASR_Soma_T	0.09629 (0.228)	0.08434 (0.044)	0.04458 (0.018)
ASR_TAO_Sum	0.02854 (0.72)	0.07532 (0.97)	0.06383 (0.178)
ASR_Thot_Raw	0.1656 (0.008)	0.1684 (0.216)	0.1199 (p < 0.00017)
ASR_Thot_T	0.1715 (0.164)	0.1342 (0.142)	0.1221 (0.006)
ASR_Totp_Raw	0.02231 (0.884)	0.09463 (0.92)	0.05755 (0.072)
ASR_Totp_T	0.01992 (0.948)	0.08056 (0.962)	0.06379 (0.136)
ASR_Witd_Raw	0.02627 (0.46)	0.04233 (0.428)	0.1186 (p < 0.00017)
ASR_Witd_T	0.05274 (0.144)	0.0287 (0.7)	0.06692 (0.068)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.03718 (0.068)	0.07493 (0.184)	0.04318 (0.856)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.05234 (0.026)	0.1204 (0.362)	0.1292 (0.15)
BMI	0.1873 (p < 0.00017)	0.1614 (0.014)	0.2974 (p < 0.00017)
BPDiastolic	0.1116 (0.002)	0.1078 (0.968)	0.05919 (0.032)
BPSystolic	0.2755 (p < 0.00017)	0.1855 (p < 0.00017)	0.2678 (p < 0.00017)
CardSort_AgeAdj	0.02559 (0.992)	0.08774 (0.046)	0.07241 (0.112)
CardSort_Unadj	0.02381 (1)	0.1215 (0.062)	0.09795 (0.042)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.2187 (p < 0.00017)	0.1026 (0.004)	0.1287 (0.02)

DDisc_AUC_40K	0.0782 (0.076)	0.1205 (p < 0.00017)	0.1977 (p < 0.00017)
DDisc_SV_10yr_200	0.07208 (0.106)	0.1357 (0.022)	0.05143 (0.59)
DDisc_SV_10yr_40K	0.09015 (0.024)	0.1106 (0.002)	0.1573 (p < 0.00017)
DDisc_SV_1mo_200	0.05221 (0.17)	0.03601 (0.694)	0.08697 (0.714)
DDisc_SV_1mo_40K	0.1129 (p < 0.00017)	0.08268 (0.176)	0.1079 (0.022)
DDisc_SV_1yr_200	0.1744 (p < 0.00017)	0.09297 (p < 0.00017)	0.1902 (p < 0.00017)
DDisc_SV_1yr_40K	0.1347 (p < 0.00017)	0.1546 (0.002)	0.1129 (p < 0.00017)
DDisc_SV_3yr_200	0.1775 (p < 0.00017)	0.1322 (p < 0.00017)	0.1394 (p < 0.00017)
DDisc_SV_3yr_40K	0.06424 (0.132)	0.1131 (0.028)	0.1665 (0.008)
DDisc_SV_5yr_200	0.2393 (p < 0.00017)	0.08067 (0.056)	0.07343 (0.608)
DDisc_SV_5yr_40K	0.06315 (0.24)	0.1049 (0.004)	0.1794 (p < 0.00017)
DDisc_SV_6mo_200	0.1478 (p < 0.00017)	0.04225 (0.184)	0.1391 (0.056)
DDisc_SV_6mo_40K	0.07763 (0.02)	0.1073 (0.098)	0.1404 (p < 0.00017)
Dexterity_AgeAdj	0.07595 (0.146)	0.03813 (0.81)	0.07826 (0.81)
Dexterity_Unadj	0.08137 (0.076)	0.04385 (0.834)	0.05192 (0.914)
DSM_Adh_Raw	0.05659 (0.108)	0.045 (0.994)	0.01056 (0.834)
DSM_Adh_T	0.05101 (0.37)	0.1108 (0.94)	0.02951 (0.794)
DSM_Antis_Raw	0.2243 (p < 0.00017)	0.2375 (p < 0.00017)	0.1377 (p < 0.00017)
DSM_Antis_T	0.1842 (p < 0.00017)	0.1691 (p < 0.00017)	0.1276 (p < 0.00017)
DSM_Anxi_Raw	0.03513 (0.748)	0.1153 (0.236)	0.2208 (p < 0.00017)
DSM_Anxi_T	0.06099 (0.466)	0.08076 (0.22)	0.1956 (p < 0.00017)
DSM_Avoid_Raw	0.005733 (0.972)	0.1635 (p < 0.00017)	0.07443 (0.008)
DSM_Avoid_T	0.008526 (0.922)	0.146 (p < 0.00017)	0.06291 (0.018)
DSM_Depr_Raw	0.01724 (0.984)	0.07656 (0.018)	0.06393 (0.076)
DSM_Depr_T	0.03288 (0.84)	0.05748 (0.062)	0.0486 (0.118)
DSM_Hype_Raw	0.08403 (0.012)	0.08051 (0.988)	0.01975 (0.424)

DSM_Inat_Raw	0.02561 (0.242)	0.03497 (0.688)	0.03107 (0.938)
DSM_Somp_Raw	0.04655 (0.772)	0.05735 (0.198)	0.06604 (0.004)
DSM_Somp_T	0.07026 (0.28)	0.05381 (0.324)	0.05921 (0.018)
Emotion_Task_Acc	0.08847 (0.01)	0.0557 (0.94)	0.09632 (p < 0.00017)
Emotion_Task_Face_Acc	0.08889 (0.026)	0.002655 (1)	0.1821 (p < 0.00017)
Emotion_Task_Face_Median_RT	0.02454 (1)	0.1405 (0.002)	0.0866 (0.18)
Emotion_Task_Median_RT	0.03204 (1)	0.1277 (0.006)	0.06537 (0.258)
Emotion_Task_Shape_Acc	0.03546 (0.72)	0.1675 (p < 0.00017)	0.08732 (0.018)
Emotion_Task_Shape_Median_RT	0.0509 (0.916)	0.135 (0.162)	0.07355 (0.17)
EmotSupp_Unadj	0.04606 (0.67)	0.02873 (0.976)	0.04221 (0.254)
Endurance_AgeAdj	0.1198 (0.002)	0.2938 (p < 0.00017)	0.0966 (0.114)
Endurance_Unadj	0.1338 (p < 0.00017)	0.3169 (p < 0.00017)	0.08961 (0.078)
ER40ANG	0.04928 (0.568)	0.05611 (0.992)	0.01396 (0.776)
ER40FEAR	0.1287 (0.73)	0.07175 (0.018)	0.01901 (0.912)
ER40NOE	0.04994 (0.514)	0.04077 (0.288)	0.008197 (0.932)
ER40SAD	0.02465 (0.794)	0.04342 (0.37)	0.02156 (1)
ER40_CRT	0.07265 (0.982)	0.01319 (0.472)	0.1481 (0.244)
ER40_CR	0.1102 (0.002)	0.02249 (0.85)	0.06552 (0.964)
EVA_Denom	0.041 (0.02)	0.179 (0.718)	0.1003 (p < 0.00017)
FearAffect_Unadj	0.1325 (p < 0.00017)	0.001299 (0.76)	0.02096 (0.12)
FearSomat_Unadj	0.03576 (0.73)	0.1681 (p < 0.00017)	0.03587 (0.282)
Flanker_AgeAdj	0.04283 (0.978)	0.06829 (0.702)	0.1579 (0.006)
Flanker_Unadj	0.04534 (0.998)	0.118 (0.476)	0.1724 (0.006)
Friendship_Unadj	0.04485 (0.724)	0.01883 (0.18)	0.06069 (0.112)
GaitSpeed_Comp	0.1185 (0.006)	0.08945 (0.008)	0.135 (p < 0.00017)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.1014 (0.12)	0.04551 (0.086)	0.1626 (p < 0.00017)

Gambling_Task_Perc_Larger	0.005588 (1)	0.04994 (0.252)	0.05505 (0.374)
Gambling_Task_Perc_Smaller	0.006853 (1)	0.05504 (0.206)	0.04944 (0.49)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.1422 (0.016)	0.06206 (0.004)	0.1514 (p < 0.00017)
Gambling_Task_Punish_Perc_Larger	0.01375 (0.914)	0.0327 (0.342)	0.06264 (0.818)
Gambling_Task_Punish_Perc_Smaller	0.01241 (0.936)	0.03283 (0.348)	0.0591 (0.876)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.01914 (0.996)	0.04244 (0.798)	0.1365 (p < 0.00017)
Gambling_Task_Reward_Perc_Smaller	0.01233 (1)	0.03778 (0.848)	0.1308 (0.002)
Handedness	0.1195 (0.114)	0.08491 (0.426)	0.1231 (0.084)
Height	0.3008 (p < 0.00017)	0.4687 (p < 0.00017)	0.3312 (p < 0.00017)
InstruSupp_Unadj	0.06947 (0.008)	0.1072 (0.39)	0.08681 (0.012)
IWRD_RTC	0.09456 (p < 0.00017)	0.06072 (0.014)	0.0676 (0.366)
IWRD_TOT	0.02026 (0.94)	0.03846 (0.494)	0.1596 (p < 0.00017)
Language_Task_Acc	0.1755 (p < 0.00017)	0.1523 (0.084)	0.2466 (p < 0.00017)
Language_Task_Math_Acc	0.1968 (0.008)	0.1568 (0.08)	0.1803 (0.104)
Language_Task_Math_Avg_Difficulty_Level	0.02818 (0.69)	0.05923 (0.61)	0.1021 (0.974)
Language_Task_Math_Median_RT	0.04771 (0.522)	0.01889 (0.096)	0.02803 (0.688)
Language_Task_Median_RT	0.02292 (0.392)	0.03772 (0.316)	0.06133 (0.04)
Language_Task_Story_Acc	0.06474 (0.262)	0.05516 (0.748)	0.03463 (0.93)
Language_Task_Story_Avg_Difficulty_Level	0.2025 (p < 0.00017)	0.1704 (0.01)	0.1851 (p < 0.00017)
Language_Task_Story_Median_RT	0.02318 (0.834)	0.01647 (0.814)	0.1297 (0.048)
LifeSatisf_Unadj	0.08912 (0.126)	0.1363 (p < 0.00017)	0.1131 (0.182)



ListSort_AgeAdj	0.09377 (0.084)	0.07005 (0.844)	0.09788 (0.012)
ListSort_Unadj	0.08445 (0.18)	0.08335 (0.824)	0.1051 (p < 0.00017)
Loneliness_Unadj	0.01668 (0.884)	0.001019 (0.908)	0.05288 (0.004)
Mars_Errs	0.07319 (0.056)	0.02807 (0.914)	0.08828 (p < 0.00017)
Mars_Final	0.08034 (0.008)	0.05007 (0.602)	0.1826 (p < 0.00017)
Mars_Log_Score	0.09369 (0.044)	0.102 (0.03)	0.1398 (p < 0.00017)
MeanPurp_Unadj	0.04227 (1)	0.007575 (0.946)	0.05959 (0.078)
MMSE_Score	0.1262 (0.184)	0.01936 (0.65)	0.01872 (0.84)
Noise_Comp	0.01947 (0.558)	0.0566 (0.99)	0.07269 (0.002)
Num_Days_Drank_7days	0.07675 (0.01)	0.04845 (0.796)	0.1469 (0.002)
Num_Days_Used_Any_Tobacco_7days	0 (1)	0 (1)	0.002868 (0.002)
Odor_AgeAdj	0.1518 (0.002)	0.03476 (0.054)	0.1198 (p < 0.00017)
Odor_Unadj	0.1515 (0.002)	0.04236 (0.03)	0.1549 (p < 0.00017)
PainIntens_RawScore	0.08341 (0.096)	0.1235 (p < 0.00017)	0.04508 (0.016)
PainInterf_Tscore	0.03101 (0.308)	0.0462 (0.838)	0.04563 (0.066)
PercHostil_Unadj	0.03706 (0.914)	0.06852 (0.04)	0.01768 (0.18)
PercReject_Unadj	0.02512 (0.768)	0.01281 (0.796)	0.03837 (0.846)
PercStress_Unadj	0.02798 (0.99)	0.04241 (0.01)	0.0698 (0.138)
PicSeq_AgeAdj	0.06432 (0.168)	0.02512 (0.624)	0.05393 (0.73)
PicSeq_Unadj	0.05406 (0.296)	0.04676 (0.266)	0.04464 (0.86)
PicVocab_AgeAdj	0.149 (p < 0.00017)	0.1009 (0.158)	0.2533 (p < 0.00017)
PicVocab_Unadj	0.1315 (p < 0.00017)	0.0605 (0.554)	0.216 (p < 0.00017)
PMAT24_A_CR	0.1493 (p < 0.00017)	0.1469 (p < 0.00017)	0.2023 (p < 0.00017)
PMAT24_A_RTICR	0.1987 (p < 0.00017)	0.1138 (0.004)	0.2351 (p < 0.00017)
PMAT24_A_SI	0.1408 (p < 0.00017)	0.171 (p < 0.00017)	0.1657 (p < 0.00017)
PosAffect_Unadj	0.05397 (0.352)	0.04196 (0.782)	0.1884 (p < 0.00017)

ProcSpeed_AgeAdj	0.01797 (0.98)	0.1983 (p < 0.00017)	0.1242 (p < 0.00017)
ProcSpeed_Unadj	0.01825 (0.996)	0.2145 (p < 0.00017)	0.1439 (p < 0.00017)
PSQI_AmtSleep	0.08301 (0.966)	0.06842 (0.384)	0.126 (0.03)
PSQI_BadDream	0.04172 (0.524)	0.0402 (0.548)	0.02638 (0.98)
PSQI_Bathroom	0.03584 (0.636)	0.03914 (0.994)	0.07093 (0.034)
PSQI_BedPtnrRmate	0.1321 (0.17)	0.1154 (0.006)	0.09421 (0.732)
PSQI_BedTime	0.1062 (0.026)	0.03901 (0.872)	0.1233 (0.004)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.02803 (0.44)	0.02818 (0.382)	0.1272 (0.002)
PSQI_Comp2	0.1278 (0.032)	0.05846 (0.146)	0.1302 (p < 0.00017)
PSQI_Comp3	0.04751 (0.988)	0.1405 (0.002)	0.1509 (0.63)
PSQI_Comp4	0.09069 (0.838)	0.09115 (0.154)	0.04875 (0.306)
PSQI_Comp5	0.04987 (0.532)	0.07913 (0.684)	0.03784 (0.772)
PSQI_Comp6	0.009347 (p < 0.00017)	0 (1)	0 (1)
PSQI_Comp7	0.02598 (0.556)	0.04193 (0.606)	0.01974 (0.338)
PSQI_DayEnthusiasm	0.03416 (0.932)	0.06571 (0.17)	0.03664 (0.174)
PSQI_DayStayAwake	0.01295 (0.764)	0.1021 (0.208)	0.08734 (0.196)
PSQI_GetUpTime	0.1136 (0.026)	0.03537 (0.676)	0.03913 (0.956)
PSQI_Latency30Min	0.07579 (0.3)	0.05502 (0.17)	0.05607 (0.608)
PSQI_Min2Asleep	0.1799 (p < 0.00017)	0.02759 (0.67)	0.08655 (0.03)
PSQI_Other	0.009703 (0.342)	0.006927 (0.87)	0.01046 (0.988)
PSQI_Pain	0.0382 (0.116)	0.03244 (0.024)	0.0006358 (0.176)
PSQI_Quality	0.03746 (0.282)	0.03031 (0.392)	0.1326 (p < 0.00017)
PSQI_Score	0.09112 (0.188)	0.08522 (0.062)	0.1343 (p < 0.00017)
PSQI_SleepMeds	0.01924 (p < 0.00017)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0 (1)	0 (1)

PSQI_TooCold	0.01211 (1)	0.05456 (0.986)	0.1316 (0.088)
PSQI_TooHot	0.1463 (0.016)	0.04991 (0.596)	0.09515 (0.19)
PSQI_WakeUp	0.0208 (0.908)	0.04616 (0.01)	0.06098 (0.002)
Race	0.07955 (0.056)	0 (1)	0.003992 (0.024)
ReadEng_AgeAdj	0.1953 (p < 0.00017)	0.1778 (p < 0.00017)	0.1583 (0.002)
ReadEng_Unadj	0.1869 (p < 0.00017)	0.1625 (0.024)	0.1558 (p < 0.00017)
Relational_Task_Acc	0.193 (0.002)	0.169 (p < 0.00017)	0.09213 (0.014)
Relational_Task_Match_Acc	0.2638 (p < 0.00017)	0.1862 (p < 0.00017)	0.1488 (0.004)
Relational_Task_Match_Median_RT	0.3202 (p < 0.00017)	0.1182 (0.006)	0.1013 (0.514)
Relational_Task_Median_RT	0.3978 (p < 0.00017)	0.09607 (0.148)	0.1525 (0.544)
Relational_Task_Rel_Acc	0.1395 (0.102)	0.0736 (0.27)	0.05406 (0.434)
Relational_Task_Rel_Median_RT	0.3775 (p < 0.00017)	0.07148 (0.32)	0.1519 (0.554)
Sadness_Unadj	0.09279 (0.17)	0.01098 (0.866)	0.03259 (0.44)
SCPT_FN	0.0244 (0.754)	0.01765 (0.984)	0.06871 (0.112)
SCPT_FP	0.1081 (p < 0.00017)	0.1433 (p < 0.00017)	0.1182 (p < 0.00017)
SCPT_LRNR	0.1588 (0.112)	0.04435 (0.724)	0.09381 (0.024)
SCPT_SEN	0.02265 (0.768)	0.01453 (0.98)	0.06496 (0.152)
SCPT_SPEC	0.1092 (p < 0.00017)	0.1415 (p < 0.00017)	0.1234 (p < 0.00017)
SCPT_TN	0.09761 (p < 0.00017)	0.1448 (0.002)	0.1131 (0.002)
SCPT_TPRT	0.08287 (0.454)	0.02175 (0.59)	0.02494 (0.714)
SCPT_TP	0.0272 (0.716)	0.01649 (0.984)	0.06707 (0.134)
SelfEff_Unadj	0.1625 (p < 0.00017)	0.1171 (0.006)	0.09104 (0.178)
Social_Task_Perc_Random	0.05351 (0.294)	0.09194 (0.244)	0.1052 (0.004)
Social_Task_Perc_TOM	0.04114 (0.966)	0.02704 (0.804)	0.1035 (0.542)
Social_Task_Perc_Unsure	0.01764 (0.996)	0.1447 (0.056)	0.09289 (0.01)

Social_Task_Random_Perc_Random	0.07421 (0.158)	0.1214 (p < 0.00017)	0.1321 (p < 0.00017)
Social_Task_Random_Perc_TOM	0.03498 (0.028)	0.00202 (0.338)	0.01521 (0.004)
Social_Task_Random_Perc_Unsure	0.08521 (0.112)	0.05318 (0.616)	0.07235 (p < 0.00017)
Social_Task_TOM_Median_RT_TOM	0.04759 (0.85)	0.04852 (0.17)	0.136 (0.062)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.02948 (0.96)	0.0655 (0.596)	0.1111 (0.08)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.06845 (p < 0.00017)
SSAGA_Alc_D4_Dp_Sx	0.1005 (0.204)	0.1254 (p < 0.00017)	0.05234 (0.012)
SSAGA_BMICatHeaviest	0.148 (p < 0.00017)	0.1456 (0.118)	0.2518 (p < 0.00017)
SSAGA_BMICat	0.1601 (p < 0.00017)	0.2214 (0.006)	0.2138 (p < 0.00017)
SSAGA_ChildhoodConduct	0.1719 (0.412)	0.1292 (0.002)	0.05912 (0.088)
SSAGA_Depressive_Sx	0.03912 (0.99)	0.01313 (1)	0.0544 (0.886)
SSAGA_Educ	0.1413 (p < 0.00017)	0.07376 (0.234)	0.1005 (0.054)
SSAGA_Income	0.04353 (0.8)	0.07641 (0.002)	0.01439 (0.992)
SSAGA_Mj_Times_Used	0.06009 (0.016)	0.09062 (0.006)	0.1242 (p < 0.00017)
SSAGA_TB_Smoking_History	0.1022 (p < 0.00017)	0.0895 (0.04)	0.06146 (0.344)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0.003752 (0.002)
SSAGA_Times_Used_Illicits	0.1535 (p < 0.00017)	0.2177 (p < 0.00017)	0.08258 (0.224)
Strength_AgeAdj	0.4083 (p < 0.00017)	0.4671 (p < 0.00017)	0.3673 (p < 0.00017)
Strength_Unadj	0.3892 (p < 0.00017)	0.469 (p < 0.00017)	0.3566 (p < 0.00017)
Taste_AgeAdj	0.02774 (0.334)	0.1072 (p < 0.00017)	0.1482 (0.002)
Taste_Unadj	0.04263 (0.214)	0.09997 (p < 0.00017)	0.1454 (p < 0.00017)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.06399 (0.022)	0.1051 (0.046)	0.1006 (0.24)
VSPLOT_CRTE	0.1024 (0.458)	0.04946 (0.968)	0.1169 (0.136)

VSPLOT_OFF	0.1492 (0.12)	0.2377 (0.004)	0.1121 (p < 0.00017)
VSPLOT_TC	0.16 (0.018)	0.1848 (0.25)	0.05226 (0.144)
Weight	0.3571 (p < 0.00017)	0.3545 (p < 0.00017)	0.4532 (p < 0.00017)
WM_Task_Obk_Acc	0.1182 (0.072)	0.0828 (0.034)	0.3369 (p < 0.00017)
WM_Task_Obk_Body_Acc	0.1506 (0.112)	0.07023 (0.04)	0.2222 (p < 0.00017)
WM_Task_Obk_Body_Acc_Nontarget	0.1717 (0.006)	0.1032 (0.048)	0.1542 (0.052)
WM_Task_Obk_Body_Acc_Target	0.07337 (0.764)	0.01648 (0.832)	0.1404 (p < 0.00017)
WM_Task_Obk_Body_Median_RT	0.09505 (0.748)	0.04027 (0.82)	0.1575 (p < 0.00017)
WM_Task_Obk_Body_Median_RT_Nontarget	0.1021 (0.486)	0.05736 (0.838)	0.1394 (p < 0.00017)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.08338 (0.302)	0.1021 (0.118)	0.2933 (p < 0.00017)
WM_Task_Obk_Face_ACC_Nontarget	0.09637 (0.578)	0.1108 (0.142)	0.3058 (p < 0.00017)
WM_Task_Obk_Face_Acc_Target	0.07152 (0.254)	0.04809 (0.268)	0.1345 (0.068)
WM_Task_Obk_Face_Median_RT	0.06198 (0.454)	0.09824 (0.01)	0.1145 (0.002)
WM_Task_Obk_Face_Median_RT_Nontarget	0.07452 (0.528)	0.1078 (0.006)	0.09991 (0.004)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.07181 (0.91)	0.09698 (0.498)	0.1689 (p < 0.00017)
WM_Task_Obk_Place_Acc	0.06322 (0.162)	0.03727 (0.16)	0.1425 (0.012)
WM_Task_Obk_Place_Acc_Nontarget	0.09998 (0.398)	0.02911 (0.122)	0.1448 (0.002)
WM_Task_Obk_Place_Acc_Target	0.02232 (0.988)	0.04657 (0.854)	0.08348 (0.082)
WM_Task_Obk_Place_Median_RT	0.02935 (0.998)	0.08259 (0.732)	0.09756 (0.064)
WM_Task_Obk_Place_Median_RT_Nontarget	0.02483 (0.998)	0.08374 (0.76)	0.1095 (0.024)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1268 (0.972)	0.08771 (0.016)	0.1647 (p < 0.00017)
WM_Task_Obk_Tool_Acc_Nontarget	0.1427 (0.8)	0.05253 (0.296)	0.218 (p < 0.00017)
WM_Task_Obk_Tool_Acc_Target	0.1735 (0.002)	0.07087 (0.02)	0.1162 (0.002)

WM_Task_Obk_Tool_Median_RT	0.07033 (0.656)	0.06815 (0.846)	0.17 (p < 0.00017)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.07739 (0.542)	0.09689 (0.668)	0.1846 (p < 0.00017)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.2055 (p < 0.00017)	0.2832 (p < 0.00017)	0.2759 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.105 (0.028)	0.2668 (p < 0.00017)	0.1376 (0.088)
WM_Task_2bk_Body_Acc_Nontarget	0.1247 (0.014)	0.2377 (p < 0.00017)	0.1321 (0.05)
WM_Task_2bk_Body_Acc_Target	0.05359 (0.02)	0.1566 (p < 0.00017)	0.2102 (p < 0.00017)
WM_Task_2bk_Body_Median_RT	0.09809 (p < 0.00017)	0.1677 (p < 0.00017)	0.1343 (0.522)
WM_Task_2bk_Body_Median_RT_Nontarget	0.06158 (0.03)	0.1581 (p < 0.00017)	0.1395 (0.65)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.09845 (0.016)	0.2228 (p < 0.00017)	0.1568 (0.004)
WM_Task_2bk_Face_Acc_Nontarget	0.03105 (0.204)	0.124 (p < 0.00017)	0.1331 (0.034)
WM_Task_2bk_Face_Acc_Target	0.1888 (0.014)	0.2255 (p < 0.00017)	0.1412 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.06123 (0.526)	0.2268 (p < 0.00017)	0.06964 (0.926)
WM_Task_2bk_Face_Median_RT_Nontarget	0.06547 (0.754)	0.2113 (p < 0.00017)	0.04321 (0.948)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.08406 (0.002)	0.2269 (0.006)	0.1518 (0.02)
WM_Task_2bk_Place_Acc	0.2429 (p < 0.00017)	0.1415 (p < 0.00017)	0.1473 (0.012)
WM_Task_2bk_Place_Acc_Nontarget	0.1421 (p < 0.00017)	0.1683 (p < 0.00017)	0.1728 (0.002)
WM_Task_2bk_Place_Acc_Target	0.1792 (p < 0.00017)	0.04077 (0.534)	0.06638 (0.462)
WM_Task_2bk_Place_Median_RT	0.03252 (0.718)	0.1521 (0.104)	0.1066 (0.01)
WM_Task_2bk_Place_Median_RT_Nontarget	0.03583 (0.906)	0.1292 (0.2)	0.09865 (0.124)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1314 (0.002)	0.1201 (0.178)	0.2653 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.1585 (p < 0.00017)	0.128 (0.052)	0.2395 (p < 0.00017)

WM_Task_2bk_Tool_Acc_Target	0.09741 (p < 0.00017)	0.05117 (0.444)	0.1077 (0.006)
WM_Task_2bk_Tool_Median_RT	0.09181 (0.208)	0.09383 (0.134)	0.1032 (0.192)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.0963 (0.134)	0.06923 (0.362)	0.1505 (p < 0.00017)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.2202 (p < 0.00017)	0.226 (p < 0.00017)	0.4057 (p < 0.00017)
WM_Task_Median_RT	0.06488 (0.456)	0.1645 (0.41)	0.1716 (p < 0.00017)
ZygotySR	0 (1)	0 (1)	0 (1)

1200 volumes | 20 subjects

1200 volumes   20 subjects			
	allrest	allscans	alltask
Age_in_Yrs	0.03601 (0.474)	0.1473 (0.716)	0.1104 (0.65)
AngAffect_Unadj	0.04937 (0.534)	0.06135 (0.372)	0.1006 (0.166)
AngAggr_Unadj	0.1275 (0.098)	0.02009 (0.326)	0.0204 (0.33)
AngHostil_Unadj	0.06448 (0.594)	0.2389 (0.184)	0.2013 (0.308)
ASR_Aggr_Raw	0.0374 (0.792)	0.07766 (0.698)	0.09201 (0.664)
ASR_Aggr_T	0.0494 (0.79)	0.1133 (0.66)	0.1568 (0.58)
ASR_Anxd_Pct	0.07741 (0.684)	0.06479 (0.636)	0.1682 (0.334)
ASR_Anxd_Raw	0.04302 (0.548)	0.131 (0.548)	0.1884 (0.428)
ASR_Attn_Raw	0.03562 (0.558)	0.2228 (0.086)	0.248 (0.078)
ASR_Attn_T	0.05222 (0.606)	0.2728 (0.088)	0.2453 (0.082)
ASR_Crit_Raw	0.03923 (0.482)	0.02859 (0.738)	0.07645 (0.478)
ASR_Extn_Raw	0.02475 (0.688)	0.04258 (0.786)	0.1063 (0.634)
ASR_Extn_T	0.04173 (0.618)	0.07574 (0.69)	0.08463 (0.658)
ASR_Intn_Raw	0.07625 (0.476)	0.04185 (0.434)	0.0566 (0.374)
ASR_Intn_T	0.07925 (0.474)	0.0477 (0.368)	0.0403 (0.406)
ASR_Intr_Raw	0.04472 (0.282)	0.0286 (0.234)	0.04455 (0.248)
ASR_Intr_T	0.06218 (0.36)	0.04648 (0.242)	0.06097 (0.284)
ASR_Oth_Raw	0.04938 (0.762)	0.1889 (0.464)	0.2555 (0.282)
ASR_Rule_Raw	0.02439 (0.578)	0.1156 (0.832)	0.1377 (0.786)
ASR_Rule_T	0.0522 (0.426)	0.04726 (0.898)	0.07977 (0.89)
ASR_Soma_Raw	0.1208 (0.526)	0.03186 (0.366)	0.02301 (0.476)
ASR_Soma_T	0.19 (0.26)	0.01387 (0.368)	0.007437 (0.486)
ASR_TAO_Sum	0.01448 (0.726)	0.1114 (0.446)	0.2141 (0.178)



ASR_Thot_Raw	0.05697 (0.472)	0.1359 (0.2)	0.1939 (0.126)
ASR_Thot_T	0.04082 (0.552)	0.1425 (0.23)	0.1885 (0.138)
ASR_Totp_Raw	0.02148 (0.592)	0.06345 (0.49)	0.1171 (0.36)
ASR_Totp_T	0.02357 (0.594)	0.05595 (0.5)	0.1017 (0.346)
ASR_Witd_Raw	0.05889 (0.38)	0.06822 (0.15)	0.05598 (0.174)
ASR_Witd_T	0.05696 (0.542)	0.04214 (0.248)	0.04365 (0.248)
Avg_Weekday_Any_Tobacco_7days	0.2858 (0.2)	0.3325 (0.16)	0.2721 (0.248)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.2557 (0.198)	0.2862 (0.244)	0.269 (0.29)
Avg_Weekday_Drinks_7days	0.05999 (0.282)	0.03917 (0.636)	0.03615 (0.682)
Avg_Weekend_Any_Tobacco_7days	0.2769 (0.18)	0.3295 (0.132)	0.301 (0.164)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0.2799 (0.192)	0.2781 (0.184)	0.2615 (0.24)
Avg_Weekend_Drinks_7days	0.1197 (0.46)	0.1174 (0.508)	0.1603 (0.394)
BMI	0.07291 (0.93)	0.1218 (0.486)	0.08812 (0.396)
BPDiastolic	0.08589 (0.47)	0.0384 (0.872)	0.08211 (0.784)
BPSystolic	0.03665 (0.582)	0.02102 (0.624)	0.05413 (0.53)
CardSort_AgeAdj	0.06988 (0.334)	0.04612 (0.628)	0.04752 (0.658)
CardSort_Unadj	0.08903 (0.34)	0.121 (0.504)	0.05424 (0.712)
CogCrystalComp_AgeAdj	0.118 (0.654)	0.2117 (0.51)	0.2143 (0.592)
CogCrystalComp_Unadj	0.145 (0.598)	0.1617 (0.43)	0.2133 (0.372)
CogEarlyComp_AgeAdj	0.09212 (0.534)	0.07921 (0.624)	0.1251 (0.552)
CogEarlyComp_Unadj	0.07885 (0.632)	0.1007 (0.61)	0.1208 (0.58)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.1096 (0.5)	0.2976 (0.034)	0.2706 (0.04)
DDisc_AUC_40K	0.1648 (0.536)	0.3452 (0.112)	0.2732 (0.144)
DDisc_SV_10yr_200	0.08585 (0.408)	0.1627 (0.134)	0.1691 (0.092)

	0.07152 (0.696)	0.2718 (0.244)	0.347 (0.178)
DDisc_SV_10yr_40K			
DDisc_SV_1mo_200	0.05681 (1)	0.4436 (0.06)	0.4923 (0.016)
	0.06924		
DDisc_SV_1mo_40K	(0.676)	0.2286 (0.204)	0.2115 (0.24)
DDisc_SV_1yr_200	0.1479 (0.232)	0.2657 (0.06)	0.2831 (0.068)
			0.06942
DDisc_SV_1yr_40K	0.2636 (0.094)	0.1328 (0.22)	(0.506)
DDisc_SV_3yr_200	0.1058 (0.82)	0.312 (0.17)	0.2865 (0.106)
DDisc_SV_3yr_40K	0.1081 (0.842)	0.187 (0.424)	0.1394 (0.406)
DDisc_SV_5yr_200	0.06872 (0.6)	0.192 (0.146)	0.1484 (0.176)
DDisc_SV_5yr_40K	0.2584 (0.186)	0.2607 (0.222)	0.2743 (0.124)
DDisc_SV_6mo_200	0.04579 (0.99)	0.1964 (0.514)	0.2663 (0.188)
DDisc_SV_6mo_40K	0.135 (0.842)	0.2434 (0.69)	0.189 (0.864)
Dexterity_AgeAdj	0.1002 (0.402)	0.262 (0.328)	0.189 (0.532)
	0.09363		
Dexterity_Unadj	(0.422)	0.2133 (0.498)	0.2228 (0.518)
	0.05131		
DSM_Adh_Raw	(0.852)	0.1752 (0.36)	0.1635 (0.282)
	0.06339		
DSM_Adh_T	(0.912)	0.1742 (0.428)	0.1783 (0.274)
	0.09607	0.05413	
DSM_Antis_Raw	(0.508)	(0.616)	0.1041 (0.546)
DSM_Antis_T	0.1937 (0.298)	0.1015 (0.696)	0.1138 (0.718)
	0.08512		
DSM_Anxi_Raw	(0.606)	0.1425 (0.426)	0.1113 (0.448)
		0.08261	
DSM_Anxi_T	0.1017 (0.706)	(0.554)	0.1568 (0.302)
		0.04046	0.07136
DSM_Avoid_Raw	0.06342 (0.65)	(0.298)	(0.304)
		0.05357	
DSM_Avoid_T	0.0376 (0.678)	(0.306)	0.09605 (0.22)
		0.03603	0.04719
DSM_Depr_Raw	0.1492 (0.642)	(0.476)	(0.366)
		0.06718	0.08403
DSM_Depr_T	0.181 (0.658)	(0.482)	(0.238)
DSM_Hype_Raw	0.0864 (0.908)	0.2651 (0.314)	0.2488 (0.25)
	0.04813		
DSM_Inat_Raw	(0.746)	0.2256 (0.054)	0.2373 (0.024)
	0.08224	0.02234	0.02011
DSM_Somp_Raw	(0.328)	(0.332)	(0.304)
	0.09054		0.02213
DSM_Somp_T	(0.292)	0.06677 (0.2)	(0.296)
			0.01084
Emotion_Task_Acc	0.1703 (0.69)	0.01768 (0.39)	(0.408)
	0.03293		
Emotion_Task_Face_Acc	(0.436)	0.0639 (0.192)	0.1108 (0.118)

Emotion_Task_Face_Median_RT	0.1717 (0.276)	0.06226 (0.582)	0.05251 (0.658)
Emotion_Task_Median_RT	0.1525 (0.352)	0.07667 (0.556)	0.08497 (0.55)
Emotion_Task_Shape_Acc	0.1525 (0.5)	0.04902 (0.11)	0.04373 (0.16)
Emotion_Task_Shape_Median_RT	0.1916 (0.074)	0.1001 (0.434)	0.1 (0.51)
EmotSupp_Unadj	0.1707 (0.248)	0.08297 (0.238)	0.05477 (0.318)
Endurance_AgeAdj	0.1265 (0.106)	0.07188 (0.606)	0.0423 (0.784)
Endurance_Unadj	0.1724 (0.096)	0.08073 (0.764)	0.05788 (0.816)
ER40ANG	0.03488 (0.346)	0.04291 (0.554)	0.04745 (0.668)
ER40FEAR	0.03847 (0.192)	0.1359 (0.086)	0.1523 (0.07)
ER40NOE	0.2422 (0.444)	0.105 (0.56)	0.07254 (0.532)
ER40SAD	0.05035 (0.478)	0.08863 (0.426)	0.1043 (0.262)
ER40_CRT	0.2093 (0.03)	0.2004 (0.34)	0.1975 (0.348)
ER40_CR	0.0708 (0.426)	0.0345 (0.434)	0.04333 (0.464)
EVA_Denom	0.257 (0.354)	0.3111 (p < 0.00017)	0.3626 (p < 0.00017)
FearAffect_Unadj	0.0615 (0.976)	0.07397 (0.7)	0.09035 (0.374)
FearSomat_Unadj	0.1246 (0.364)	0.1279 (0.07)	0.1467 (0.06)
Flanker_AgeAdj	0.2009 (0.042)	0.1922 (0.276)	0.1808 (0.386)
Flanker_Unadj	0.2301 (0.042)	0.1366 (0.462)	0.1769 (0.41)
Friendship_Unadj	0.1226 (0.754)	0.2079 (0.3)	0.2213 (0.168)
GaitSpeed_Comp	0.06298 (0.832)	0.09359 (0.504)	0.1637 (0.35)
Gambling_Task_Median_RT_Larger	0.07461 (0.632)	0.1696 (0.708)	0.1664 (0.64)
Gambling_Task_Median_RT_Smaller	0.03764 (0.434)	0.2019 (0.566)	0.131 (0.698)
Gambling_Task_Perc_Larger	0.03408 (0.88)	0.1782 (0.344)	0.2868 (0.314)
Gambling_Task_Perc_Smaller	0.05302 (0.87)	0.2039 (0.306)	0.2267 (0.426)
Gambling_Task_Punish_Median_RT_Larger	0.082 (0.558)	0.1285 (0.83)	0.1135 (0.848)
Gambling_Task_Punish_Median_RT_Smaller	0.08812 (0.424)	0.1815 (0.756)	0.189 (0.676)
Gambling_Task_Punish_Perc_Larger	0.116 (0.332)	0.1117 (0.484)	0.1524 (0.422)
Gambling_Task_Punish_Perc_Smaller	0.09974 (0.362)	0.1127 (0.484)	0.1563 (0.4)

Gambling_Task_Reward_Median_RT_Larger	0.06709 (0.682)	0.1333 (0.59)	0.1608 (0.5)
Gambling_Task_Reward_Median_RT_Smaller	0.08067 (0.308)	0.1543 (0.48)	0.08636 (0.638)
Gambling_Task_Reward_Perc_Larger	0.09878 (0.634)	0.1644 (0.21)	0.2206 (0.124)
Gambling_Task_Reward_Perc_Smaller	0.08243 (0.644)	0.1551 (0.196)	0.2241 (0.152)
Handedness	0.05586 (0.296)	0.1567 (0.35)	0.1886 (0.408)
Height	0.03749 (0.334)	0.5022 (0.032)	0.5489 (0.022)
InstruSupp_Unadj	0.1394 (0.504)	0.2733 (0.188)	0.2712 (0.142)
IWRD_RTC	0.07321 (0.336)	0.03552 (0.556)	0.0377 (0.496)
IWRD_TOT	0.08164 (0.878)	0.08515 (0.956)	0.05752 (0.95)
Language_Task_Acc	0.09147 (0.528)	0.09453 (0.652)	0.1013 (0.652)
Language_Task_Math_Acc	0.1417 (0.082)	0.1919 (0.162)	0.1742 (0.226)
Language_Task_Math_Avg_Difficulty_Level	0.121 (0.7)	0.06393 (0.478)	0.03703 (0.54)
Language_Task_Math_Median_RT	0.05327 (0.464)	0.07212 (0.3)	0.09533 (0.258)
Language_Task_Median_RT	0.09818 (0.51)	0.1944 (0.062)	0.1332 (0.106)
Language_Task_Story_Acc	0.02094 (0.962)	0.1101 (0.484)	0.1572 (0.186)
Language_Task_Story_Avg_Difficulty_Level	0.02922 (0.836)	0.05478 (0.91)	0.05478 (0.856)
Language_Task_Story_Median_RT	0.1259 (0.348)	0.2056 (0.08)	0.2402 (0.02)
LifeSatisf_Unadj	0.1425 (0.534)	0.1246 (0.886)	0.1543 (0.85)
ListSort_AgeAdj	0.09047 (0.318)	0.1368 (0.154)	0.1246 (0.308)
ListSort_Unadj	0.09116 (0.286)	0.1463 (0.268)	0.1523 (0.336)
Loneliness_Unadj	0.1311 (0.684)	0.04164 (0.66)	0.03359 (0.682)
Mars_Errs	0.1227 (0.098)	0.114 (0.232)	0.09417 (0.22)
Mars_Final	0.1366 (0.056)	0.08374 (0.362)	0.07232 (0.424)
Mars_Log_Score	0.09669 (0.084)	0.04059 (0.332)	0.05519 (0.322)
MeanPurp_Unadj	0.1497 (0.674)	0.01996 (0.614)	0.02252 (0.382)
MMSE_Score	0.1968 (0.428)	0.02058 (0.682)	0.007273 (0.884)
Noise_Comp	0.1354 (0.474)	0.17 (0.1)	0.1654 (0.064)

Num_Days_Drank_7days	0.04338 (0.568)	0.07549 (0.584)	0.08976 (0.632)
Num_Days_Used_Any_Tobacco_7days	0.4385 (0.078)	0.2591 (0.224)	0.2347 (0.356)
Odor_AgeAdj	0.08951 (0.718)	0.1175 (0.664)	0.1489 (0.638)
Odor_Unadj	0.07154 (0.71)	0.1561 (0.486)	0.1994 (0.43)
PainIntens_RawScore	0.1206 (0.272)	0.1347 (0.81)	0.1461 (0.794)
PainInterf_Tscore	0.1124 (0.316)	0.4697 (0.012)	0.4399 (0.022)
PercHostil_Unadj	0.1287 (0.414)	0.02952 (0.378)	0.0277 (0.324)
PercReject_Unadj	0.05981 (0.504)	0.008713 (0.098)	0.02318 (0.1)
PercStress_Unadj	0.07861 (0.616)	0.2673 (0.09)	0.2998 (0.148)
PicSeq_AgeAdj	0.1286 (0.524)	0.05602 (0.638)	0.0467 (0.63)
PicSeq_Unadj	0.1677 (0.39)	0.05812 (0.636)	0.05183 (0.614)
PicVocab_AgeAdj	0.1187 (0.718)	0.1852 (0.61)	0.2614 (0.44)
PicVocab_Unadj	0.086 (0.716)	0.1605 (0.45)	0.2406 (0.286)
PMAT24_A_CR	0.1169 (0.218)	0.04933 (0.308)	0.03777 (0.62)
PMAT24_A_RTcr	0.1321 (0.254)	0.1761 (0.128)	0.22 (0.106)
PMAT24_A_Si	0.1292 (0.216)	0.01799 (0.538)	0.03458 (0.742)
PosAffect_Unadj	0.2866 (0.016)	0.1125 (0.63)	0.07182 (0.85)
ProcSpeed_AgeAdj	0.1097 (0.534)	0.02661 (0.538)	0.01861 (0.614)
ProcSpeed_Unadj	0.1454 (0.524)	0.04619 (0.432)	0.08414 (0.374)
PSQI_AmtSleep	0.2592 (0.282)	0.2292 (0.32)	0.2139 (0.348)
PSQI_BadDream	0.1215 (0.444)	0.245 (0.272)	0.1957 (0.4)
PSQI_Bathroom	0.2616 (0.012)	0.1314 (0.074)	0.1158 (0.064)
PSQI_BedPtnrRmate	0.09345 (0.344)	0.03038 (0.542)	0.01922 (0.678)
PSQI_BedTime	0.2441 (0.184)	0.08939 (0.512)	0.07202 (0.636)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.1374 (0.244)	0.3294 (0.16)	0.3567 (0.104)
PSQI_Comp2	0.1649 (0.376)	0.15 (0.544)	0.2309 (0.352)
PSQI_Comp3	0.3177 (0.076)	0.278 (0.016)	0.1998 (0.076)
PSQI_Comp4	0.1098 (0.112)	0.145 (0.1)	0.08826 (0.202)
PSQI_Comp5	0 (1)	0 (1)	0 (1)
PSQI_Comp6	0 (1)	0 (1)	0 (1)

PSQI_Comp7	0.03776 (0.522)	0.2212 (0.278)	0.1502 (0.362)
PSQI_DayEnthusiasm	0.08076 (0.162)	0.2039 (0.494)	0.161 (0.544)
PSQI_DayStayAwake	0.1602 (0.154)	0.05687 (0.408)	0.08124 (0.304)
PSQI_GetUpTime	0.2636 (0.048)	0.04107 (0.574)	0.02983 (0.718)
PSQI_Latency30Min	0.09272 (0.662)	0.09053 (0.566)	0.1506 (0.382)
PSQI_Min2Asleep	0.2961 (0.098)	0.1566 (0.15)	0.1488 (0.2)
PSQI_Other	0.07633 (0.428)	0.07754 (0.492)	0.09583 (0.49)
PSQI_Pain	0.04008 (0.966)	0.1136 (0.336)	0.1216 (0.146)
PSQI_Quality	0.1465 (0.24)	0.2986 (0.168)	0.3504 (0.106)
PSQI_Score	0.2477 (0.514)	0.4954 (0.14)	0.4702 (0.154)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0 (1)	0 (1)
PSQI_TooCold	0.08433 (0.59)	0.06222 (0.186)	0.09374 (0.124)
PSQI_TooHot	0.09452 (0.968)	0.1538 (0.76)	0.1606 (0.658)
PSQI_WakeUp	0.1313 (0.562)	0.1336 (0.558)	0.1511 (0.556)
Race	0.2125 (0.318)	0.3095 (0.058)	0.2067 (0.118)
ReadEng_AgeAdj	0.1459 (0.478)	0.1351 (0.484)	0.1752 (0.5)
ReadEng_Unadj	0.1525 (0.478)	0.1318 (0.478)	0.1733 (0.5)
Relational_Task_Acc	0.1047 (0.706)	0.03669 (0.518)	0.04489 (0.472)
Relational_Task_Match_Acc	0.1779 (0.156)	0.1397 (0.23)	0.174 (0.262)
Relational_Task_Match_Median_RT	0.1273 (0.152)	0.1311 (0.166)	0.1375 (0.192)
Relational_Task_Median_RT	0.1372 (0.088)	0.1093 (0.102)	0.08709 (0.142)
Relational_Task_Rel_Acc	0.08814 (0.878)	0.03541 (0.576)	0.047 (0.484)
Relational_Task_Rel_Median_RT	0.2367 (0.028)	0.1312 (0.068)	0.1236 (0.088)
Sadness_Unadj	0.06643 (0.6)	0.05226 (0.696)	0.07926 (0.696)
SCPT_FN	0.5132 (0.002)	0.2099 (0.124)	0.1326 (0.354)
SCPT_FP	0.09841 (0.522)	0.02796 (0.496)	0.0339 (0.526)
SCPT_LRNR	0.05412 (0.576)	0.0365 (0.23)	0.05311 (0.154)
SCPT_SEN	0.5176 (p < 0.00017)	0.1744 (0.204)	0.1651 (0.278)
SCPT_SPEC	0.09614 (0.546)	0.03028 (0.48)	0.02539 (0.536)

SCPT_TN	0.1079 (0.532)	0.02513 (0.488)	0.01985 (0.578)
SCPT_TPRT	0.09969 (0.364)	0.04669 (0.638)	0.04784 (0.662)
SCPT_TP	0.5608 (p < 0.00017)	0.2002 (0.106)	0.1634 (0.246)
SelfEff_Unadj	0.0792 (0.432)	0.07298 (0.686)	0.0731 (0.65)
Social_Task_Perc_Random	0.4245 (0.018)	0.282 (0.088)	0.1996 (0.316)
Social_Task_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Perc_Unsure	0.3567 (0.034)	0.1649 (0.166)	0.1148 (0.336)
Social_Task_Random_Perc_Random	0.4075 (0.026)	0.1427 (0.188)	0.1533 (0.26)
Social_Task_Random_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Random_Perc_Unsure	0.3934 (0.032)	0.1605 (0.144)	0.09869 (0.362)
Social_Task_TOM_Median_RT_TOM	0.165 (0.102)	0.3121 (0.004)	0.4074 (p < 0.00017)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0 (1)
SSAGA_Alc_D4_Dp_Sx	0.3325 (0.176)	0.3606 (0.076)	0.3757 (0.05)
SSAGA_BMICatHeaviest	0.1909 (0.288)	0.1684 (0.324)	0.1057 (0.478)
SSAGA_BMICat	0.06374 (0.412)	0.1244 (0.466)	0.1251 (0.478)
SSAGA_ChildhoodConduct	0.2868 (0.066)	0.2121 (0.66)	0.1966 (0.704)
SSAGA_Depressive_Sx	0.1384 (0.286)	0.003112 (0.464)	0.003482 (0.314)
SSAGA_Educ	0.05908 (0.552)	0.2519 (0.046)	0.1463 (0.172)
SSAGA_Income	0.0438 (0.382)	0.07666 (0.234)	0.05668 (0.438)
SSAGA_Mj_Times_Used	0.08542 (0.476)	0.1136 (0.456)	0.1202 (0.42)
SSAGA_TB_Smoking_History	0.1941 (0.632)	0.3841 (0.002)	0.398 (0.008)
SSAGA_Times_Used_Hallucinogens	0.05685 (0.278)	0.1368 (0.63)	0.1899 (0.628)
SSAGA_Times_Used_Illicits	0.1428 (0.17)	0.1916 (0.592)	0.247 (0.516)
Strength_AgeAdj	0.0763 (0.378)	0.4786 (0.006)	0.4747 (0.016)
Strength_Unadj	0.03915 (0.548)	0.3741 (0.05)	0.4521 (0.03)
Taste_AgeAdj	0.0989 (0.318)	0.05232 (0.78)	0.03833 (0.83)
Taste_Unadj	0.1249 (0.208)	0.0728 (0.778)	0.04853 (0.812)
Times_Used_Any_Tobacco_Today	0.1818 (0.37)	0.2305 (0.156)	0.3041 (0.142)
Total_Any_Tobacco_7days	0.2389 (0.252)	0.3383 (0.124)	0.2302 (0.35)

Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.2351 (0.238)	0.3198 (0.154)	0.1984 (0.32)
Total_Drinks_7days	0.1277 (0.222)	0.1523 (0.434)	0.1845 (0.454)
VSPLOT_CRTE	0.2455 (0.08)	0.07018 (0.36)	0.03624 (0.45)
VSPLOT_OFF	0.2113 (0.104)	0.1668 (0.032)	0.1745 (0.026)
VSPLOT_TC	0.2253 (0.066)	0.1068 (0.096)	0.1646 (0.072)
Weight	0.1016 (0.94)	0.3671 (0.148)	0.4006 (0.12)
WM_Task_Obk_Acc	0.09006 (0.808)	0.05599 (0.764)	0.06121 (0.756)
WM_Task_Obk_Body_Acc	0.08873 (0.246)	0.06081 (0.73)	0.129 (0.696)
WM_Task_Obk_Body_Acc_Nontarget	0.1202 (0.226)	0.05976 (0.618)	0.04525 (0.766)
WM_Task_Obk_Body_Acc_Target	0.07267 (0.458)	0.1565 (0.454)	0.1809 (0.404)
WM_Task_Obk_Body_Median_RT	0.2232 (0.08)	0.2733 (0.152)	0.2748 (0.224)
WM_Task_Obk_Body_Median_RT_Nontarget	0.2261 (0.11)	0.2884 (0.136)	0.2821 (0.258)
WM_Task_Obk_Body_Median_RT_Target	0.04152 (0.654)	0.01794 (0.47)	0.02382 (0.46)
WM_Task_Obk_Face_Acc	0.0579 (0.304)	0.08388 (0.096)	0.116 (0.1)
WM_Task_Obk_Face_ACC_Nontarget	0.01044 (0.234)	0.02321 (0.6)	0.06209 (0.374)
WM_Task_Obk_Face_Acc_Target	0.1629 (0.24)	0.1081 (0.054)	0.1378 (0.07)
WM_Task_Obk_Face_Median_RT	0.09061 (0.658)	0.109 (0.298)	0.09467 (0.368)
WM_Task_Obk_Face_Median_RT_Nontarget	0.153 (0.506)	0.1112 (0.244)	0.1222 (0.228)
WM_Task_Obk_Face_Median_RT_Target	0.1258 (0.714)	0.2692 (0.296)	0.2908 (0.276)
WM_Task_Obk_Median_RT	0.174 (0.412)	0.2364 (0.164)	0.2252 (0.208)
WM_Task_Obk_Place_Acc	0.05854 (0.658)	0.01966 (0.69)	0.03151 (0.778)
WM_Task_Obk_Place_Acc_Nontarget	0.161 (0.282)	0.03927 (0.542)	0.02821 (0.654)
WM_Task_Obk_Place_Acc_Target	0.03625 (0.534)	0.04758 (0.558)	0.01509 (0.624)
WM_Task_Obk_Place_Median_RT	0.1573 (0.466)	0.07485 (0.772)	0.1205 (0.602)
WM_Task_Obk_Place_Median_RT_Nontarget	0.1592 (0.498)	0.06038 (0.876)	0.07214 (0.812)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.2044 (0.312)	0.2815 (0.076)	0.2783 (0.132)
WM_Task_Obk_Tool_Acc_Nontarget	0.2623 (0.64)	0.1252 (0.262)	0.07198 (0.22)
WM_Task_Obk_Tool_Acc_Target	0.06299 (0.822)	0.2655 (0.772)	0.267 (0.64)



WM_Task_Obk_Tool_Median_RT	0.1586 (0.206)	0.2386 (0.094)	0.2652 (0.134)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.1022 (0.314)	0.2368 (0.108)	0.287 (0.092)
WM_Task_Obk_Tool_Median_RT_Target	0.2814 (0.072)	0.1525 (0.032)	0.1966 (0.06)
WM_Task_2bk_Acc	0.2081 (0.94)	0.1676 (0.674)	0.148 (0.646)
WM_Task_2bk_Body_Acc	0.2604 (0.448)	0.08229 (0.912)	0.101 (0.826)
WM_Task_2bk_Body_Acc_Nontarget	0.2222 (0.25)	0.116 (0.776)	0.1212 (0.704)
WM_Task_2bk_Body_Acc_Target	0.2078 (0.824)	0.1542 (0.296)	0.1054 (0.454)
WM_Task_2bk_Body_Median_RT	0.02533 (0.778)	0.1079 (0.854)	0.1711 (0.692)
WM_Task_2bk_Body_Median_RT_Nontarget	0.03073 (0.616)	0.09055 (0.842)	0.1183 (0.76)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1834 (0.73)	0.09647 (0.664)	0.07938 (0.768)
WM_Task_2bk_Face_Acc_Nontarget	0.1632 (0.466)	0.1916 (0.432)	0.1722 (0.594)
WM_Task_2bk_Face_Acc_Target	0.1429 (0.862)	0.08306 (0.44)	0.1297 (0.162)
WM_Task_2bk_Face_Median_RT	0.09279 (0.95)	0.1671 (0.726)	0.1762 (0.514)
WM_Task_2bk_Face_Median_RT_Nontarget	0.09418 (0.944)	0.2107 (0.594)	0.2029 (0.398)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.06594 (0.628)	0.1287 (0.676)	0.1659 (0.512)
WM_Task_2bk_Place_Acc	0.1189 (0.904)	0.07273 (0.748)	0.09752 (0.652)
WM_Task_2bk_Place_Acc_Nontarget	0.09847 (0.746)	0.1737 (0.532)	0.2036 (0.398)
WM_Task_2bk_Place_Acc_Target	0.1226 (0.684)	0.07818 (0.474)	0.06768 (0.6)
WM_Task_2bk_Place_Median_RT	0.1315 (0.37)	0.1322 (0.568)	0.1964 (0.468)
WM_Task_2bk_Place_Median_RT_Nontarget	0.1062 (0.42)	0.1839 (0.354)	0.1813 (0.44)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1903 (0.598)	0.2442 (0.29)	0.2484 (0.39)
WM_Task_2bk_Tool_Acc_Nontarget	0.1868 (0.434)	0.3734 (0.058)	0.3332 (0.192)
WM_Task_2bk_Tool_Acc_Target	0.1226 (0.752)	0.08377 (0.76)	0.09572 (0.8)
WM_Task_2bk_Tool_Median_RT	0.1376 (0.17)	0.1475 (0.572)	0.09133 (0.724)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1341 (0.258)	0.1958 (0.57)	0.08933 (0.742)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1361 (0.856)	0.09848 (0.808)	0.106 (0.938)

WM_Task_Median_RT	0.05842 (0.814)	0.193 (0.438)	0.1736 (0.424)
ZygotySR	0.04435 (0.13)	0.1124 (0.458)	0.1341 (0.422)

1200 volumes   20 subjects			
	rfMRI_REST1	rfMRI_REST2	tfMRI_EMOTION
Age_in_Yrs	0.1097 (0.268)	0.1577 (0.45)	0.06752 (0.658)
AngAffect_Unadj	0.04877 (0.59)	0.01451 (0.644)	0.1824 (0.202)
AngAggr_Unadj	0.1385 (0.202)	0.06134 (0.156)	0.04347 (0.236)
AngHostil_Unadj	0.04253 (0.506)	0.1187 (0.6)	0.08128 (0.592)
ASR_Aggr_Raw	0.03267 (0.758)	0.02764 (0.866)	0.141 (0.152)
ASR_Aggr_T	0.02944 (0.824)	0.06834 (0.78)	0.1874 (0.1)
ASR_Anxd_Pct	0.04681 (0.63)	0.1139 (0.592)	0.2398 (0.052)
ASR_Anxd_Raw	0.02572 (0.566)	0.1094 (0.318)	0.2472 (0.044)
ASR_Attn_Raw	0.04214 (0.692)	0.03826 (0.368)	0.3338 (0.052)
ASR_Attn_T	0.0703 (0.664)	0.06191 (0.432)	0.3217 (0.072)
ASR_Crit_Raw	0.008961 (0.47)	0.0522 (0.554)	0.1944 (0.192)
ASR_Extn_Raw	0.06087 (0.452)	0.03333 (0.786)	0.09282 (0.4)
ASR_Extn_T	0.07588 (0.316)	0.01656 (0.788)	0.1138 (0.226)
ASR_Intn_Raw	0.09875 (0.398)	0.06897 (0.354)	0.1348 (0.09)
ASR_Intn_T	0.1239 (0.356)	0.0463 (0.438)	0.1625 (0.066)
ASR_Intr_Raw	0.09322 (0.128)	0.03307 (0.342)	0.1682 (0.19)
ASR_Intr_T	0.1212 (0.148)	0.06013 (0.414)	0.2462 (0.078)
ASR_Oth_Raw	0.03014 (0.828)	0.0248 (0.632)	0.3322 (0.064)
ASR_Rule_Raw	0.1125 (0.26)	0.02421 (0.54)	0.2427 (0.076)
ASR_Rule_T	0.1086 (0.178)	0.03054 (0.484)	0.2232 (0.09)
ASR_Soma_Raw	0.2556 (0.08)	0.09132 (0.592)	0.1256 (0.01)
ASR_Soma_T	0.386 (0.006)	0.1107 (0.432)	0.1419 (0.064)
ASR_TAO_Sum	0.04371 (0.592)	0.03071 (0.62)	0.3927 (0.008)

ASR_Thot_Raw	0.04165 (0.458)	0.02753 (0.626)	0.2296 (0.02)
ASR_Thot_T	0.05674 (0.398)	0.04653 (0.548)	0.2168 (0.102)
ASR_Totp_Raw	0.0317 (0.508)	0.03088 (0.604)	0.2895 (0.022)
ASR_Totp_T	0.03579 (0.516)	0.01659 (0.66)	0.3177 (0.012)
ASR_Witd_Raw	0.1068 (0.512)	0.02038 (0.652)	0.05804 (0.384)
ASR_Witd_T	0.06816 (0.624)	0.02948 (0.644)	0.04394 (0.482)
Avg_Weekday_Any_Tobacco_7days	0.2506 (0.414)	0.2684 (0.118)	0.1604 (0.078)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.2528 (0.438)	0.1886 (0.24)	0.1875 (0.102)
Avg_Weekday_Drinks_7days	0.0623 (0.412)	0.04869 (0.276)	0.2727 (0.436)
Avg_Weekend_Any_Tobacco_7days	0.2802 (0.39)	0.2876 (0.094)	0.1644 (0.058)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0.2653 (0.456)	0.215 (0.196)	0.1758 (0.116)
Avg_Weekend_Drinks_7days	0.1702 (0.576)	0.1361 (0.27)	0.2356 (0.062)
BMI	0.09903 (0.878)	0.1014 (0.804)	0.1483 (0.688)
BPDiastolic	0.06447 (0.488)	0.1462 (0.318)	0.09517 (0.792)
BPSystolic	0.05391 (0.564)	0.03621 (0.584)	0.1268 (0.708)
CardSort_AgeAdj	0.04164 (0.498)	0.08803 (0.266)	0.2401 (0.048)
CardSort_Unadj	0.04391 (0.654)	0.06 (0.394)	0.3204 (0.022)
CogCrystalComp_AgeAdj	0.1398 (0.558)	0.1453 (0.546)	0.1549 (0.38)
CogCrystalComp_Unadj	0.1657 (0.476)	0.14 (0.534)	0.1304 (0.408)
CogEarlyComp_AgeAdj	0.04052 (0.648)	0.08836 (0.516)	0.3049 (0.046)
CogEarlyComp_Unadj	0.04361 (0.69)	0.08636 (0.526)	0.2926 (0.058)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.06582 (0.808)	0.2512 (0.56)	0.2424 (0.074)
DDisc_AUC_40K	0.108 (0.616)	0.1554 (0.576)	0.136 (0.246)
DDisc_SV_10yr_200	0.08279 (0.494)	0.1677 (0.576)	0.1777 (0.088)

DDisc_SV_10yr_40K	0.03558 (0.66)	0.07243 (0.64)	0.07694 (0.468)
		0.07666	
DDisc_SV_1mo_200	0.05859 (1)	(0.974)	0.3143 (0.422)
DDisc_SV_1mo_40K	0.1274 (0.562)	0.06609 (0.54)	0.1624 (0.606)
	0.06959		
DDisc_SV_1yr_200	(0.572)	0.2291 (0.374)	0.1573 (0.204)
DDisc_SV_1yr_40K	0.202 (0.134)	0.3036 (0.068)	0.06258 (0.184)
	0.06966		
DDisc_SV_3yr_200	(0.868)	0.2115 (0.872)	0.2741 (0.026)
DDisc_SV_3yr_40K	0.08515 (0.8)	0.1413 (0.836)	0.2257 (0.078)
DDisc_SV_5yr_200	0.03864 (0.8)	0.1081 (0.658)	0.2049 (0.194)
DDisc_SV_5yr_40K	0.1495 (0.434)	0.2079 (0.332)	0.1132 (0.29)
DDisc_SV_6mo_200	0.1286 (0.928)	0.08429 (0.98)	0.2187 (0.386)
		0.09467	
DDisc_SV_6mo_40K	0.1507 (0.708)	(0.816)	0.1937 (0.444)
Dexterity_AgeAdj	0.1111 (0.584)	0.2395 (0.208)	0.1794 (0.174)
Dexterity_Unadj	0.1078 (0.604)	0.2364 (0.248)	0.165 (0.174)
	0.06585		
DSM_Adh_Raw	(0.882)	0.06215 (0.66)	0.4588 (0.006)
	0.06082	0.07402	
DSM_Adh_T	(0.892)	(0.798)	0.3143 (0.048)
	0.07026		
DSM_Antis_Raw	(0.522)	0.08195 (0.42)	0.08033 (0.228)
DSM_Antis_T	0.08963 (0.54)	0.147 (0.216)	0.08475 (0.312)
	0.08461		
DSM_Anxi_Raw	(0.562)	0.08772 (0.58)	0.2949 (0.026)
DSM_Anxi_T	0.127 (0.548)	0.1112 (0.678)	0.2186 (0.23)
		0.04879	
DSM_Avoid_Raw	0.04362 (0.62)	(0.488)	0.2198 (0.062)
	0.02958	0.07012	
DSM_Avoid_T	(0.696)	(0.518)	0.1802 (0.102)
DSM_Depr_Raw	0.237 (0.402)	0.078 (0.698)	0.1021 (0.268)
DSM_Depr_T	0.1832 (0.588)	0.1266 (0.74)	0.1196 (0.252)
	0.07813	0.09743	
DSM_Hype_Raw	(0.896)	(0.844)	0.3773 (0.042)
	0.07382	0.05089	
DSM_Inat_Raw	(0.614)	(0.658)	0.1796 (0.172)
DSM_Somp_Raw	0.1115 (0.096)	0.1026 (0.374)	0.2231 (0.016)
DSM_Somp_T	0.1446 (0.054)	0.1034 (0.314)	0.2609 (0.004)
		0.09672	
Emotion_Task_Acc	0.1671 (0.548)	(0.788)	0.06822 (0.402)
Emotion_Task_Face_Acc	0.0112 (0.328)	0.1214 (0.428)	0.0114 (0.774)
Emotion_Task_Face_Median_RT	0.1046 (0.36)	0.1275 (0.314)	0.06943 (0.514)
Emotion_Task_Median_RT	0.06767 (0.53)	0.2237 (0.126)	0.1258 (0.292)
Emotion_Task_Shape_Acc	0.1869 (0.232)	0.1286 (0.54)	0.1759 (0.14)

Emotion_Task_Shape_Median_RT	0.09158 (0.326)	0.2825 (0.032)	0.1664 (0.196)
EmotSupp_Unadj	0.1813 (0.256)	0.1604 (0.072)	0.1251 (0.268)
Endurance_AgeAdj	0.1415 (0.146)	0.1208 (0.166)	0.04527 (0.502)
Endurance_Unadj	0.2061 (0.078)	0.1388 (0.108)	0.02797 (0.654)
ER40ANG	0.0729 (0.25)	0.02298 (0.688)	0.06568 (0.608)
ER40FEAR	0.01638 (0.184)	0.08676 (0.162)	0.1994 (0.156)
ER40NOE	0.1483 (0.72)	0.3424 (0.106)	0.2063 (0.138)
ER40SAD	0.06417 (0.424)	0.03857 (0.368)	0.1136 (0.178)
ER40_CRT	0.1558 (0.068)	0.1757 (0.084)	0.04052 (0.894)
ER40_CR	0.03051 (0.428)	0.02543 (0.45)	0.07923 (0.608)
EVA_Denom	0.3575 (0.196)	0.2152 (0.286)	0.09026 (0.096)
FearAffect_Unadj	0.1197 (0.972)	0.05044 (0.924)	0.1673 (0.638)
FearSomat_Unadj	0.1437 (0.168)	0.09095 (0.26)	0.116 (0.06)
Flanker_AgeAdj	0.1256 (0.164)	0.1747 (0.028)	0.4097 (0.176)
Flanker_Unadj	0.106 (0.214)	0.1797 (0.03)	0.4047 (0.232)
Friendship_Unadj	0.2052 (0.68)	0.102 (0.612)	0.1054 (0.19)
GaitSpeed_Comp	0.09102 (0.378)	0.03942 (0.882)	0.1129 (0.596)
Gambling_Task_Median_RT_Larger	0.07597 (0.566)	0.04918 (0.702)	0.05561 (0.692)
Gambling_Task_Median_RT_Smaller	0.09536 (0.422)	0.0323 (0.346)	0.03424 (0.754)
Gambling_Task_Perc_Larger	0.04225 (0.628)	0.0692 (0.778)	0.2319 (0.552)
Gambling_Task_Perc_Smaller	0.05431 (0.618)	0.04615 (0.812)	0.2311 (0.554)
Gambling_Task_Punish_Median_RT_Larger	0.07145 (0.506)	0.03494 (0.76)	0.04188 (0.776)
Gambling_Task_Punish_Median_RT_Smaller	0.1034 (0.402)	0.03779 (0.616)	0.05479 (0.712)
Gambling_Task_Punish_Perc_Larger	0.05662 (0.542)	0.1131 (0.318)	0.2498 (0.334)
Gambling_Task_Punish_Perc_Smaller	0.07443 (0.502)	0.09488 (0.462)	0.2513 (0.368)
Gambling_Task_Reward_Median_RT_Larger	0.06433 (0.654)	0.02079 (0.732)	0.06715 (0.614)
Gambling_Task_Reward_Median_RT_Smaller	0.144 (0.302)	0.02821 (0.27)	0.02685 (0.706)
Gambling_Task_Reward_Perc_Larger	0.1516 (0.324)	0.03927 (0.804)	0.2012 (0.244)

Gambling_Task_Reward_Perc_Smaller	0.1701 (0.316)	0.03498 (0.786)	0.1897 (0.202)
Handedness	0.09688 (0.242)	0.03256 (0.272)	0.1131 (0.144)
Height	0.03492 (0.51)	0.1294 (0.178)	0.3653 (0.124)
InstruSupp_Unadj	0.1213 (0.506)	0.3237 (0.064)	0.07445 (0.562)
IWRD_RTC	0.05352 (0.61)	0.1106 (0.376)	0.08594 (0.886)
IWRD_TOT	0.06358 (0.896)	0.07676 (0.904)	0.2495 (0.28)
Language_Task_Acc	0.1299 (0.202)	0.09219 (0.62)	0.02557 (0.68)
Language_Task_Math_Acc	0.1698 (0.068)	0.1403 (0.072)	0.09368 (0.25)
Language_Task_Math_Avg_Difficulty_Level	0.1293 (0.546)	0.1652 (0.742)	0.08234 (0.228)
Language_Task_Math_Median_RT	0.2076 (0.29)	0.08767 (0.482)	0.07639 (0.298)
Language_Task_Median_RT	0.1385 (0.25)	0.1247 (0.572)	0.1159 (0.162)
Language_Task_Story_Acc	0.03222 (0.962)	0.05385 (0.782)	0.04403 (0.75)
Language_Task_Story_Avg_Difficulty_Level	0.04289 (0.402)	0.02865 (0.922)	0.0926 (0.716)
Language_Task_Story_Median_RT	0.05509 (0.368)	0.2057 (0.6)	0.1057 (0.14)
LifeSatisf_Unadj	0.07139 (0.61)	0.2126 (0.646)	0.2604 (0.114)
ListSort_AgeAdj	0.0419 (0.398)	0.1125 (0.322)	0.07739 (0.596)
ListSort_Unadj	0.05075 (0.416)	0.1329 (0.29)	0.08451 (0.65)
Loneliness_Unadj	0.1146 (0.538)	0.04626 (0.968)	0.2742 (0.018)
Mars_Errs	0.1557 (0.118)	0.1099 (0.458)	0.03547 (0.38)
Mars_Final	0.1088 (0.384)	0.1308 (0.032)	0.04196 (0.678)
Mars_Log_Score	0.09429 (0.242)	0.07923 (0.142)	0.02432 (0.566)
MeanPurp_Unadj	0.06292 (0.844)	0.4069 (0.208)	0.06048 (0.536)
MMSE_Score	0.1656 (0.37)	0.08298 (0.696)	0.02854 (0.766)
Noise_Comp	0.1278 (0.728)	0.0677 (0.258)	0.2896 (0.034)
Num_Days_Drank_7days	0.1418 (0.488)	0.07432 (0.41)	0.3047 (0.28)
Num_Days_Used_Any_Tobacco_7days	0.47 (0.178)	0.2599 (0.09)	0.1222 (0.11)
Odor_AgeAdj	0.08659 (0.726)	0.04048 (0.792)	0.02733 (0.842)
Odor_Unadj	0.08322 (0.668)	0.03715 (0.79)	0.0539 (0.606)
PainIntens_RawScore	0.2084 (0.09)	0.1386 (0.304)	0.05044 (0.97)
PainInterf_Tscore	0.09279 (0.46)	0.1566 (0.272)	0.1762 (0.068)

PercHostil_Unadj	0.1226 (0.566)	0.07307 (0.852)	0.0816 (0.536)
PercReject_Unadj	0.03002 (0.43)	0.03758 (0.6)	0.04002 (0.13)
PercStress_Unadj	0.07324 (0.582)	0.09445 (0.554)	0.1383 (0.202)
PicSeq_AgeAdj	0.09353 (0.558)	0.1231 (0.39)	0.0792 (0.024)
PicSeq_Unadj	0.09432 (0.482)	0.1296 (0.396)	0.07598 (0.034)
PicVocab_AgeAdj	0.1074 (0.792)	0.1214 (0.504)	0.06518 (0.522)
PicVocab_Unadj	0.1068 (0.712)	0.06615 (0.64)	0.07909 (0.472)
PMAT24_A_CR	0.1357 (0.42)	0.08122 (0.15)	0.1376 (0.646)
PMAT24_A_RTCT	0.1618 (0.442)	0.1616 (0.1)	0.3156 (0.112)
PMAT24_A_SI	0.1377 (0.362)	0.1226 (0.068)	0.103 (0.734)
PosAffect_Unadj	0.1659 (0.22)	0.2485 (0.032)	0.1739 (0.33)
ProcSpeed_AgeAdj	0.1115 (0.528)	0.07039 (0.688)	0.1556 (0.126)
ProcSpeed_Unadj	0.146 (0.454)	0.07226 (0.786)	0.14 (0.234)
PSQI_AmtSleep	0.2421 (0.444)	0.2627 (0.2)	0.1471 (0.344)
PSQI_BadDream	0.2581 (0.33)	0.1247 (0.214)	0.02721 (0.702)
PSQI_Bathroom	0.1539 (0.112)	0.2983 (0.026)	0.06305 (0.3)
PSQI_BedPtnrRmate	0.1141 (0.368)	0.06686 (0.882)	0.1498 (0.258)
PSQI_BedTime	0.1403 (0.416)	0.2922 (0.096)	0.08807 (0.158)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.1674 (0.498)	0.1547 (0.118)	0.3057 (0.356)
PSQI_Comp2	0.2546 (0.14)	0.1568 (0.398)	0.1084 (0.572)
PSQI_Comp3	0.2112 (0.174)	0.3092 (0.112)	0.1113 (0.296)
PSQI_Comp4	0.2011 (0.17)	0.09717 (0.112)	0.1611 (0.828)
PSQI_Comp5	0 (1)	0 (1)	0 (1)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.08855 (0.256)	0.05333 (0.496)	0.1783 (0.4)
PSQI_DayEnthusiasm	0.1143 (0.184)	0.06897 (0.248)	0.3346 (0.042)
PSQI_DayStayAwake	0.1242 (0.326)	0.1596 (0.018)	0.08298 (0.322)
PSQI_GetUpTime	0.1599 (0.356)	0.1409 (0.224)	0.1452 (0.668)
PSQI_Latency30Min	0.1437 (0.338)	0.07343 (0.692)	0.1218 (0.324)
PSQI_Min2Asleep	0.324 (0.144)	0.1113 (0.516)	0.2663 (0.03)
PSQI_Other	0.09384 (0.18)	0.1063 (0.638)	0.1894 (0.252)

PSQI_Pain	0.06877 (0.934)	0.07542 (0.944)	0.1206 (0.408)
PSQI_Quality	0.1615 (0.504)	0.1921 (0.046)	0.3356 (0.334)
PSQI_Score	0.3042 (0.416)	0.1357 (0.578)	0.2071 (0.082)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0 (1)	0 (1)
PSQI_TooCold	0.02185 (0.92)	0.1937 (0.054)	0.109 (0.3)
PSQI_TooHot	0.08448 (0.936)	0.06469 (0.962)	0.2282 (0.304)
PSQI_WakeUp	0.1611 (0.384)	0.07185 (0.684)	0.07339 (0.526)
Race	0.1627 (0.582)	0.1965 (0.086)	0.07785 (0.44)
ReadEng_AgeAdj	0.1292 (0.358)	0.1521 (0.514)	0.1957 (0.322)
ReadEng_Unadj	0.1425 (0.372)	0.1497 (0.56)	0.2053 (0.38)
Relational_Task_Acc	0.1463 (0.862)	0.07249 (0.434)	0.2059 (0.086)
Relational_Task_Match_Acc	0.1355 (0.31)	0.176 (0.078)	0.2306 (0.068)
Relational_Task_Match_Median_RT	0.0537 (0.51)	0.2359 (0.108)	0.1811 (0.12)
Relational_Task_Median_RT	0.1286 (0.146)	0.2142 (0.024)	0.1144 (0.4)
Relational_Task_Rel_Acc	0.2394 (0.894)	0.04357 (0.61)	0.1576 (0.284)
Relational_Task_Rel_Median_RT	0.1663 (0.078)	0.2168 (0.042)	0.1191 (0.222)
Sadness_Unadj	0.03719 (0.592)	0.04123 (0.636)	0.2811 (0.138)
SCPT_FN	0.5235 (0.002)	0.4 (0.004)	0.1793 (0.456)
SCPT_FP	0.04961 (0.82)	0.1076 (0.292)	0.05368 (0.228)
SCPT_LRNR	0.03328 (0.502)	0.07994 (0.698)	0.1136 (0.314)
SCPT_SEN	0.5613 (0.004)	0.3726 (0.006)	0.1422 (0.496)
SCPT_SPEC	0.06091 (0.754)	0.1127 (0.284)	0.0659 (0.214)
SCPT_TN	0.06398 (0.806)	0.1023 (0.306)	0.0553 (0.26)
SCPT_TPRT	0.1257 (0.362)	0.07662 (0.184)	0.1253 (0.616)
SCPT_TP	0.5428 (p < 0.00017)	0.3884 (p < 0.00017)	0.1468 (0.566)
SelfEff_Unadj	0.1719 (0.326)	0.05386 (0.346)	0.1096 (0.614)
Social_Task_Perc_Random	0.2963 (0.19)	0.4042 (0.014)	0.1698 (0.66)
Social_Task_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Perc_Unsure	0.3096 (0.12)	0.3584 (0.072)	0.1219 (0.82)
Social_Task_Random_Perc_Random	0.3126 (0.126)	0.3766 (0.066)	0.09422 (0.804)
Social_Task_Random_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Random_Perc_Unsure	0.3151 (0.122)	0.3323 (0.092)	0.12 (0.81)



Social_Task_TOM_Median_RT_TOM	0.1442 (0.294)	0.1388 (0.05)	0.2089 (0.134)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0 (1)
SSAGA_Alc_D4_Dp_Sx	0.1792 (0.422)	0.5799 (0.004)	0.3256 (0.018)
SSAGA_BMICatHeaviest	0.1983 (0.382)	0.1107 (0.33)	0.0343 (0.614)
SSAGA_BMICat	0.04451 (0.594)	0.04061 (0.288)	0.04892 (0.73)
SSAGA_ChildhoodConduct	0.08857 (0.334)	0.4413 (0.018)	0.2907 (0.688)
SSAGA_Depressive_Sx	0.1616 (0.124)	0.1667 (0.544)	0.01316 (0.23)
SSAGA_Educ	0.09042 (0.384)	0.09592 (0.418)	0.06327 (0.408)
SSAGA_Income	0.05357 (0.44)	0.06461 (0.638)	0.1402 (0.43)
SSAGA_Mj_Times_Used	0.0529 (0.72)	0.09212 (0.33)	0.2695 (0.128)
SSAGA_TB_Smoking_History	0.06816 (0.854)	0.2235 (0.55)	0.1429 (0.044)
SSAGA_Times_Used_Hallucinogens	0.06504 (0.164)	0.06739 (0.286)	0.02686 (0.956)
SSAGA_Times_Used_Illicits	0.0424 (0.31)	0.08318 (0.292)	0.0604 (0.698)
Strength_AgeAdj	0.07979 (0.54)	0.07721 (0.45)	0.3544 (0.004)
Strength_Unadj	0.113 (0.516)	0.04233 (0.652)	0.272 (0.04)
Taste_AgeAdj	0.08844 (0.23)	0.07886 (0.488)	0.05278 (0.716)
Taste_Unadj	0.07808 (0.288)	0.1073 (0.314)	0.0377 (0.788)
Times_Used_Any_Tobacco_Today	0.2036 (0.52)	0.08154 (0.614)	0.1624 (0.086)
Total_Any_Tobacco_7days	0.2667 (0.404)	0.2681 (0.116)	0.1596 (0.058)
Total_Cheew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.2218 (0.506)	0.1865 (0.228)	0.1915 (0.086)
Total_Drinks_7days	0.1476 (0.506)	0.09506 (0.124)	0.355 (0.164)
VSPLOT_CRTE	0.1466 (0.118)	0.258 (0.044)	0.1716 (0.06)
VSPLOT_OFF	0.1528 (0.454)	0.2299 (0.034)	0.2172 (0.444)
VSPLOT_TC	0.1638 (0.462)	0.2635 (0.038)	0.2468 (0.516)
Weight	0.06342 (0.82)	0.09114 (0.884)	0.2988 (0.148)
WM_Task_Obk_Acc	0.1278 (0.528)	0.06572 (0.806)	0.1194 (0.682)
WM_Task_Obk_Body_Acc	0.06918 (0.402)	0.06637 (0.394)	0.1652 (0.25)
WM_Task_Obk_Body_Acc_Nontarget	0.1484 (0.226)	0.0988 (0.332)	0.2171 (0.152)

WM_Task_Obk_Body_Acc_Target	0.08231 (0.624)	0.04468 (0.494)	0.0916 (0.422)
WM_Task_Obk_Body_Median_RT	0.08218 (0.194)	0.26 (0.102)	0.293 (0.136)
WM_Task_Obk_Body_Median_RT_Nontarget	0.07933 (0.25)	0.252 (0.082)	0.3163 (0.082)
WM_Task_Obk_Body_Median_RT_Target	0.04064 (0.512)	0.06927 (0.676)	0.04558 (0.598)
WM_Task_Obk_Face_Acc	0.0743 (0.388)	0.06492 (0.3)	0.1925 (0.378)
WM_Task_Obk_Face_ACC_Nontarget	0.002321 (0.34)	0.02089 (0.346)	0.07568 (0.654)
WM_Task_Obk_Face_Acc_Target	0.1861 (0.35)	0.02758 (0.318)	0.181 (0.128)
WM_Task_Obk_Face_Median_RT	0.04242 (0.638)	0.1277 (0.462)	0.09361 (0.636)
WM_Task_Obk_Face_Median_RT_Nontarget	0.05548 (0.528)	0.2034 (0.222)	0.1267 (0.468)
WM_Task_Obk_Face_Median_RT_Target	0.124 (0.804)	0.1638 (0.326)	0.2442 (0.512)
WM_Task_Obk_Median_RT	0.06524 (0.604)	0.2352 (0.238)	0.1731 (0.146)
WM_Task_Obk_Place_Acc	0.09551 (0.23)	0.07524 (0.602)	0.0492 (0.786)
WM_Task_Obk_Place_Acc_Nontarget	0.1135 (0.222)	0.1779 (0.28)	0.06097 (0.618)
WM_Task_Obk_Place_Acc_Target	0.05946 (0.158)	0.07084 (0.55)	0.02901 (0.462)
WM_Task_Obk_Place_Median_RT	0.06506 (0.686)	0.1725 (0.444)	0.2039 (0.136)
WM_Task_Obk_Place_Median_RT_Nontarget	0.06537 (0.632)	0.1892 (0.516)	0.1045 (0.406)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1712 (0.196)	0.2639 (0.128)	0.4027 (0.026)
WM_Task_Obk_Tool_Acc_Nontarget	0.1871 (0.702)	0.2431 (0.5)	0.3546 (0.022)
WM_Task_Obk_Tool_Acc_Target	0.02893 (0.698)	0.0838 (0.9)	0.2506 (0.636)
WM_Task_Obk_Tool_Median_RT	0.06488 (0.444)	0.2315 (0.164)	0.2562 (0.064)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.04488 (0.444)	0.1207 (0.402)	0.2454 (0.064)
WM_Task_Obk_Tool_Median_RT_Target	0.2794 (0.164)	0.1877 (0.1)	0.426 (0.006)
WM_Task_2bk_Acc	0.1928 (0.88)	0.07054 (0.986)	0.1737 (0.368)
WM_Task_2bk_Body_Acc	0.3147 (0.48)	0.06519 (0.768)	0.2891 (0.81)
WM_Task_2bk_Body_Acc_Nontarget	0.2699 (0.38)	0.08722 (0.412)	0.2482 (0.588)
WM_Task_2bk_Body_Acc_Target	0.2085 (0.548)	0.07586 (0.876)	0.09087 (0.654)

WM_Task_2bk_Body_Median_RT	0.01224 (0.826)	0.05858 (0.616)	0.04097 (0.698)
WM_Task_2bk_Body_Median_RT_Nontarget	0.01367 (0.644)	0.07182 (0.692)	0.07751 (0.498)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.234 (0.718)	0.1504 (0.724)	0.3416 (0.018)
WM_Task_2bk_Face_Acc_Nontarget	0.1869 (0.478)	0.1163 (0.604)	0.4674 (p < 0.00017)
WM_Task_2bk_Face_Acc_Target	0.2459 (0.802)	0.1159 (0.79)	0.2537 (0.19)
WM_Task_2bk_Face_Median_RT	0.1433 (0.804)	0.1124 (0.966)	0.04333 (0.49)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1894 (0.794)	0.1125 (0.98)	0.02239 (0.696)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1086 (0.678)	0.05212 (0.506)	0.0467 (0.68)
WM_Task_2bk_Place_Acc	0.04797 (0.888)	0.1225 (0.972)	0.06578 (0.424)
WM_Task_2bk_Place_Acc_Nontarget	0.09427 (0.422)	0.08942 (0.936)	0.1326 (0.612)
WM_Task_2bk_Place_Acc_Target	0.1443 (0.608)	0.0806 (0.608)	0.1499 (0.078)
WM_Task_2bk_Place_Median_RT	0.1198 (0.562)	0.05755 (0.342)	0.08445 (0.564)
WM_Task_2bk_Place_Median_RT_Nontarget	0.07812 (0.666)	0.07197 (0.304)	0.08024 (0.462)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1879 (0.372)	0.1142 (0.658)	0.169 (0.364)
WM_Task_2bk_Tool_Acc_Nontarget	0.1369 (0.482)	0.1293 (0.486)	0.1864 (0.344)
WM_Task_2bk_Tool_Acc_Target	0.06279 (0.69)	0.06123 (0.852)	0.08522 (0.474)
WM_Task_2bk_Tool_Median_RT	0.2451 (0.238)	0.05321 (0.238)	0.093 (0.55)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1771 (0.37)	0.06503 (0.406)	0.08055 (0.622)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1693 (0.676)	0.1033 (0.884)	0.1641 (0.628)
WM_Task_Median_RT	0.08576 (0.73)	0.06991 (0.606)	0.1089 (0.548)
ZygotySR	0.08852 (0.052)	0.07464 (0.096)	0.09562 (0.296)

1200 volumes   20 subjects			
	tfMRI_GAMBLI NG	tfMRI_LANGUA GE	tfMRI_MOTO R
Age_in_Yrs	0.1096 (0.816)	0.1081 (0.094)	0.05093 (0.388)
AngAffect_Unadj	0.01359 (0.542)	0.1454 (0.348)	0.1825 (0.31)
AngAggr_Unadj	0.165 (0.068)	0.05229 (0.66)	0.06525 (0.494)
AngHostil_Unadj	0.1163 (0.12)	0.03219 (0.492)	0.1526 (0.468)
ASR_Aggr_Raw	0.1244 (0.128)	0.09464 (0.82)	0.07657 (0.534)
ASR_Aggr_T	0.1268 (0.19)	0.08249 (0.878)	0.05015 (0.59)
ASR_Anxd_Pct	0.08478 (0.382)	0.2636 (0.444)	0.09402 (0.354)
ASR_Anxd_Raw	0.1102 (0.248)	0.2825 (0.348)	0.05874 (0.548)
ASR_Attn_Raw	0.05709 (0.116)	0.4382 (0.074)	0.08403 (0.336)
ASR_Attn_T	0.06202 (0.198)	0.3215 (0.236)	0.1716 (0.132)
ASR_Crit_Raw	0.02555 (0.654)	0.2913 (0.402)	0.1591 (0.136)
ASR_Extn_Raw	0.07372 (0.672)	0.1311 (0.936)	0.01999 (0.49)
ASR_Extn_T	0.05042 (0.476)	0.1435 (0.814)	0.04095 (0.482)
ASR_Intn_Raw	0.09226 (0.136)	0.2282 (0.404)	0.1546 (0.342)
ASR_Intn_T	0.08419 (0.182)	0.2289 (0.308)	0.1545 (0.198)
ASR_Intr_Raw	0.08337 (0.274)	0.0789 (0.878)	0.04433 (0.812)
ASR_Intr_T	0.1267 (0.186)	0.08772 (0.936)	0.05179 (0.754)
ASR_Oth_Raw	0.1081 (0.488)	0.243 (0.322)	0.107 (0.448)
ASR_Rule_Raw	0.07842 (0.768)	0.06306 (0.942)	0.1149 (0.124)
ASR_Rule_T	0.05169 (0.868)	0.1013 (0.944)	0.06425 (0.156)
ASR_Soma_Raw	0.01022 (0.8)	0.1032 (0.106)	0.1501 (0.308)
ASR_Soma_T	0.02012 (0.786)	0.05257 (0.108)	0.1514 (0.384)
ASR_TAO_Sum	0.03435 (0.326)	0.3962 (0.07)	0.1362 (0.3)
ASR_Thot_Raw	0.06688 (0.736)	0.0886 (0.34)	0.148 (0.314)
ASR_Thot_T	0.06092 (0.792)	0.0842 (0.442)	0.1104 (0.38)
ASR_Totp_Raw	0.04286 (0.348)	0.3257 (0.258)	0.117 (0.414)
ASR_Totp_T	0.04721 (0.42)	0.261 (0.366)	0.1246 (0.35)
ASR_Witd_Raw	0.08166 (0.164)	0.03812 (0.638)	0.07724 (0.454)
ASR_Witd_T	0.1004 (0.19)	0.06809 (0.754)	0.07634 (0.488)
Avg_Weekday_Any_Tobacco_7days	0.3237 (0.044)	0.1548 (0.242)	0.1851 (0.356)

Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.2021 (0.114)	0.1673 (0.298)	0.1971 (0.242)
Avg_Weekday_Drinks_7days	0.1128 (0.42)	0.1515 (0.264)	0.1539 (0.28)
Avg_Weekend_Any_Tobacco_7days	0.3202 (0.038)	0.1509 (0.188)	0.225 (0.292)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0.2097 (0.08)	0.1891 (0.172)	0.2469 (0.148)
Avg_Weekend_Drinks_7days	0.1257 (0.674)	0.1619 (0.342)	0.06774 (0.524)
BMI	0.05188 (0.33)	0.03918 (0.776)	0.08818 (0.794)
BPDiastolic	0.01783 (0.47)	0.06432 (0.962)	0.09485 (0.746)
BPSystolic	0.01654 (0.29)	0.06912 (0.69)	0.07632 (0.886)
CardSort_AgeAdj	0.01155 (0.854)	0.1499 (0.526)	0.2478 (0.046)
CardSort_Unadj	0.01624 (0.782)	0.2035 (0.28)	0.3248 (0.044)
CogCrystalComp_AgeAdj	0.2005 (0.14)	0.37 (0.448)	0.06942 (0.624)
CogCrystalComp_Unadj	0.1643 (0.156)	0.2982 (0.566)	0.07582 (0.428)
CogEarlyComp_AgeAdj	0.08376 (0.378)	0.172 (0.412)	0.1279 (0.546)
CogEarlyComp_Unadj	0.0847 (0.348)	0.2513 (0.248)	0.1191 (0.64)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.2796 (0.17)	0.155 (0.14)	0.1455 (0.278)
DDisc_AUC_40K	0.2263 (0.022)	0.09791 (0.232)	0.1062 (0.248)
DDisc_SV_10yr_200	0.2561 (0.344)	0.103 (0.26)	0.09465 (0.448)
DDisc_SV_10yr_40K	0.187 (0.036)	0.106 (0.224)	0.03173 (0.456)
DDisc_SV_1mo_200	0.3938 (0.004)	0.634 (p < 0.00017)	0.1603 (0.74)
DDisc_SV_1mo_40K	0.1446 (0.376)	0.0971 (0.43)	0.0879 (0.608)
DDisc_SV_1yr_200	0.3183 (0.182)	0.172 (0.112)	0.1833 (0.136)
DDisc_SV_1yr_40K	0.2123 (0.042)	0.08279 (0.244)	0.09938 (0.248)
DDisc_SV_3yr_200	0.1724 (0.208)	0.12 (0.258)	0.1909 (0.326)
DDisc_SV_3yr_40K	0.1681 (0.162)	0.2223 (0.076)	0.1528 (0.238)
DDisc_SV_5yr_200	0.2817 (0.32)	0.2125 (0.142)	0.1033 (0.44)
DDisc_SV_5yr_40K	0.1694 (0.1)	0.1215 (0.206)	0.119 (0.192)
DDisc_SV_6mo_200	0.1891 (0.388)	0.146 (0.264)	0.1379 (0.244)

DDisc_SV_6mo_40K	0.1163 (0.302)	0.146 (0.284)	0.07347 (0.446)
Dexterity_AgeAdj	0.1196 (0.362)	0.2073 (0.212)	0.2623 (0.388)
Dexterity_Unadj	0.1124 (0.338)	0.1907 (0.23)	0.2662 (0.43)
DSM_Adh_Raw	0.06126 (0.156)	0.3424 (0.026)	0.08299 (0.528)
DSM_Adh_T	0.04153 (0.286)	0.2589 (0.036)	0.07776 (0.546)
DSM_Antis_Raw	0.2296 (0.188)	0.03825 (0.914)	0.02714 (0.528)
DSM_Antis_T	0.2493 (0.404)	0.08085 (0.8)	0.03955 (0.702)
DSM_Anxi_Raw	0.07934 (0.392)	0.347 (0.074)	0.05295 (0.778)
DSM_Anxi_T	0.1543 (0.202)	0.2116 (0.442)	0.07747 (0.576)
DSM_Avoid_Raw	0.1024 (0.07)	0.1274 (0.822)	0.07442 (0.178)
DSM_Avoid_T	0.1094 (0.088)	0.1662 (0.69)	0.07761 (0.156)
DSM_Depr_Raw	0.007294 (0.252)	0.1657 (0.35)	0.2745 (0.088)
DSM_Depr_T	0.004157 (0.238)	0.1073 (0.528)	0.2418 (0.166)
DSM_Hype_Raw	0.1149 (0.19)	0.1546 (0.388)	0.04701 (0.488)
DSM_Inat_Raw	0.1182 (0.07)	0.3093 (0.1)	0.08532 (0.402)
DSM_Somp_Raw	0.04056 (0.702)	0.1495 (0.03)	0.1189 (0.354)
DSM_Somp_T	0.05617 (0.586)	0.1214 (0.074)	0.1254 (0.39)
Emotion_Task_Acc	0.03813 (0.178)	0.03836 (0.69)	0.3309 (0.02)
Emotion_Task_Face_Acc	0.1399 (0.154)	0.07056 (0.178)	0.03444 (0.388)
Emotion_Task_Face_Median_RT	0.1218 (0.76)	0.03857 (0.456)	0.3828 (p < 0.00017)
Emotion_Task_Median_RT	0.2438 (0.414)	0.03388 (0.374)	0.3538 (0.012)
Emotion_Task_Shape_Acc	0.06354 (0.382)	0.1511 (0.254)	0.3211 (0.02)
Emotion_Task_Shape_Median_RT	0.3202 (0.154)	0.01845 (0.48)	0.3351 (0.118)
EmotSupp_Unadj	0.09219 (0.338)	0.02653 (0.734)	0.1453 (0.216)
Endurance_AgeAdj	0.097 (0.118)	0.1141 (0.848)	0.1248 (0.462)
Endurance_Unadj	0.1478 (0.102)	0.08858 (0.848)	0.1358 (0.494)
ER40ANG	0.02374 (0.406)	0.1901 (0.874)	0.2548 (0.096)
ER40FEAR	0.09442 (0.388)	0.1869 (0.49)	0.008358 (0.366)
ER40NOE	0.1149 (0.36)	0.1576 (0.33)	0.1228 (0.742)
ER40SAD	0.03123 (0.53)	0.123 (0.3)	0.1839 (0.22)

ER40_CRT	0.1127 (0.328)	0.06345 (0.21)	0.1251 (0.1)
ER40_CR	0.04272 (0.33)	0.1959 (0.694)	0.1259 (0.14)
EVA_Denom	0.3097 (0.07)	0.1005 (0.396)	0.07199 (0.392)
FearAffect_Unadj	0.06711 (0.458)	0.2009 (0.244)	0.05381 (0.49)
FearSomat_Unadj	0.2229 (0.1)	0.2035 (0.22)	0.1113 (0.284)
Flanker_AgeAdj	0.1713 (0.242)	0.1751 (0.092)	0.2343 (0.316)
Flanker_Unadj	0.1564 (0.296)	0.1498 (0.086)	0.2087 (0.368)
Friendship_Unadj	0.2121 (0.172)	0.05779 (0.642)	0.4705 (0.052)
GaitSpeed_Comp	0.109 (0.414)	0.05827 (0.564)	0.1708 (0.316)
Gambling_Task_Median_RT_Larger	0.2074 (0.102)	0.08706 (0.978)	0.04876 (0.808)
Gambling_Task_Median_RT_Smaller	0.1578 (0.152)	0.03521 (0.998)	0.1328 (0.492)
Gambling_Task_Perc_Larger	0.07436 (0.412)	0.3312 (0.8)	0.09856 (0.466)
Gambling_Task_Perc_Smaller	0.07536 (0.4)	0.3053 (0.834)	0.07184 (0.514)
Gambling_Task_Punish_Median_RT_Larger	0.1883 (0.164)	0.1268 (0.956)	0.05658 (0.912)
Gambling_Task_Punish_Median_RT_Smaller	0.1069 (0.156)	0.04288 (0.996)	0.1359 (0.69)
Gambling_Task_Punish_Perc_Larger	0.1122 (0.706)	0.09839 (0.388)	0.1971 (0.378)
Gambling_Task_Punish_Perc_Smaller	0.08526 (0.728)	0.07455 (0.476)	0.1695 (0.438)
Gambling_Task_Reward_Median_RT_Larger	0.2013 (0.13)	0.08367 (0.996)	0.04218 (0.686)
Gambling_Task_Reward_Median_RT_Smaller	0.13 (0.174)	0.06961 (0.986)	0.1119 (0.3)
Gambling_Task_Reward_Perc_Larger	0.233 (0.026)	0.2428 (0.746)	0.07162 (0.666)
Gambling_Task_Reward_Perc_Smaller	0.1935 (0.064)	0.2862 (0.68)	0.08096 (0.584)
Handedness	0.2087 (0.646)	0.09796 (0.606)	0.02271 (0.708)
Height	0.03959 (0.26)	0.278 (0.006)	0.1673 (0.376)
InstruSupp_Unadj	0.183 (0.268)	0.244 (0.062)	0.2176 (0.418)
IWRD_RTC	0.007182 (0.666)	0.08279 (0.392)	0.04367 (0.626)
IWRD_TOT	0.07466 (0.96)	0.08431 (0.788)	0.04983 (0.87)
Language_Task_Acc	0.1831 (0.412)	0.157 (0.564)	0.2111 (0.108)
Language_Task_Math_Acc	0.1986 (0.206)	0.2489 (0.178)	0.1088 (0.242)
Language_Task_Math_Avg_Difficulty_Level	0.2503 (0.052)	0.1861 (0.186)	0.1969 (0.276)
Language_Task_Math_Median_RT	0.06376 (0.612)	0.07136 (0.604)	0.1104 (0.326)

Language_Task_Median_RT	0.08297 (0.708)	0.05818 (0.684)	0.05682 (0.274)
Language_Task_Story_Acc	0.1481 (0.376)	0.3336 (0.318)	0.399 (0.102)
Language_Task_Story_Avg_Difficulty_Level	0.1119 (0.49)	0.1355 (0.688)	0.09996 (0.444)
Language_Task_Story_Median_RT	0.1451 (0.634)	0.1158 (0.114)	0.1942 (0.096)
LifeSatisf_Unadj	0.1625 (0.756)	0.09383 (0.544)	0.2647 (0.332)
ListSort_AgeAdj	0.2476 (0.03)	0.1331 (0.844)	0.01711 (0.512)
ListSort_Unadj	0.2489 (0.07)	0.1681 (0.876)	0.03795 (0.388)
Loneliness_Unadj	0.155 (0.37)	0.03432 (0.922)	0.08899 (0.61)
Mars_Errs	0.2062 (0.432)	0.01921 (0.112)	0.08445 (0.456)
Mars_Final	0.1242 (0.544)	0.06956 (0.708)	0.07369 (0.278)
Mars_Log_Score	0.1467 (0.384)	0.1051 (0.492)	0.06734 (0.18)
MeanPurp_Unadj	0.0915 (0.266)	0.0204 (0.892)	0.1779 (0.098)
MMSE_Score	0.0753 (0.812)	0.009033 (0.804)	0.08278 (0.918)
Noise_Comp	0.04468 (0.338)	0.1845 (0.104)	0.06694 (0.5)
Num_Days_Drank_7days	0.05457 (0.832)	0.1631 (0.126)	0.05586 (0.194)
Num_Days_Used_Any_Tobacco_7days	0.3055 (0.052)	0.1147 (0.14)	0.2622 (0.226)
Odor_AgeAdj	0.1643 (0.064)	0.03478 (0.916)	0.1811 (0.184)
Odor_Unadj	0.1594 (0.048)	0.04328 (0.788)	0.1901 (0.106)
PainIntens_RawScore	0.1681 (0.604)	0.154 (0.51)	0.04199 (0.452)
PainInterf_Tscore	0.26 (0.292)	0.3262 (0.04)	0.07288 (0.362)
PercHostil_Unadj	0.1757 (0.514)	0.0195 (0.28)	0.152 (0.288)
PercReject_Unadj	0.157 (0.072)	0.03095 (0.568)	0.08425 (0.212)
PercStress_Unadj	0.2598 (0.034)	0.211 (0.4)	0.09982 (0.288)
PicSeq_AgeAdj	0.09462 (0.166)	0.03838 (0.956)	0.03081 (0.58)
PicSeq_Unadj	0.1218 (0.118)	0.05937 (0.874)	0.03409 (0.64)
PicVocab_AgeAdj	0.2336 (0.132)	0.2404 (0.766)	0.1089 (0.79)
PicVocab_Unadj	0.1437 (0.122)	0.2183 (0.712)	0.1121 (0.66)
PMAT24_A_CR	0.05572 (0.534)	0.2639 (0.596)	0.08598 (0.45)
PMAT24_A_RTCT	0.07785 (0.25)	0.3984 (0.248)	0.1067 (0.566)
PMAT24_A_SI	0.06909 (0.536)	0.2144 (0.73)	0.05187 (0.38)
PosAffect_Unadj	0.04371 (0.864)	0.1129 (0.56)	0.1444 (0.246)
ProcSpeed_AgeAdj	0.03418 (0.774)	0.04067 (0.794)	0.1926 (0.17)



ProcSpeed_Unadj	0.09564 (0.352)	0.04188 (0.656)	0.2408 (0.274)
PSQI_AmtSleep	0.3317 (0.05)	0.3629 (0.052)	0.09408 (0.436)
PSQI_BadDream	0.3284 (0.06)	0.1281 (0.482)	0.3084 (0.144)
PSQI_Bathroom	0.1089 (0.134)	0.2649 (0.146)	0.2307 (0.236)
PSQI_BedPtnrRmate	0.06449 (0.826)	0.01615 (0.506)	0.1316 (0.148)
PSQI_BedTime	0.1094 (0.758)	0.05843 (0.148)	0.2075 (0.094)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.1011 (0.21)	0.1762 (0.394)	0.07238 (0.66)
PSQI_Comp2	0.2107 (0.114)	0.3425 (0.134)	0.01104 (0.628)
PSQI_Comp3	0.2858 (0.06)	0.08937 (0.58)	0.04518 (0.51)
PSQI_Comp4	0.05357 (0.61)	0.1706 (0.09)	0.03563 (0.738)
PSQI_Comp5	0 (1)	0 (1)	0 (1)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.09268 (0.442)	0.1513 (0.622)	0.1364 (0.394)
PSQI_DayEnthusiasm	0.05252 (0.602)	0.09883 (0.618)	0.2434 (0.082)
PSQI_DayStayAwake	0.1433 (0.436)	0.1834 (0.668)	0.09864 (0.2)
PSQI_GetUpTime	0.03798 (0.848)	0.1441 (0.618)	0.1018 (0.266)
PSQI_Latency30Min	0.2523 (0.132)	0.3914 (0.128)	0.01447 (0.548)
PSQI_Min2Asleep	0.05726 (0.794)	0.1345 (0.17)	0.08084 (0.484)
PSQI_Other	0.05369 (0.08)	0.05782 (0.564)	0.1183 (0.79)
PSQI_Pain	0.2857 (0.08)	0.1186 (0.252)	0.08542 (0.334)
PSQI_Quality	0.1315 (0.194)	0.201 (0.388)	0.07493 (0.628)
PSQI_Score	0.3346 (0.32)	0.4304 (0.044)	0.05074 (0.58)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0 (1)	0 (1)
PSQI_TooCold	0.09182 (0.314)	0.09809 (0.526)	0.09976 (0.562)
PSQI_TooHot	0.2324 (0.598)	0.2556 (0.14)	0.04938 (0.782)
PSQI_WakeUp	0.1158 (0.168)	0.0796 (0.818)	0.3394 (0.366)
Race	0.1213 (0.052)	0.3463 (0.222)	0.107 (0.398)
ReadEng_AgeAdj	0.1336 (0.198)	0.3356 (0.57)	0.0833 (0.334)
ReadEng_Unadj	0.07318 (0.282)	0.2983 (0.658)	0.07179 (0.33)
Relational_Task_Acc	0.2732 (0.06)	0.09405 (0.588)	0.2221 (0.478)
Relational_Task_Match_Acc	0.3386 (0.084)	0.09238 (0.53)	0.1122 (0.764)
Relational_Task_Match_Median_RT	0.269 (0.112)	0.0697 (0.498)	0.2937 (0.09)

Relational_Task_Median_RT	0.1973 (0.098)	0.0617 (0.638)	0.1966 (0.21)
Relational_Task_Rel_Acc	0.1579 (0.214)	0.2691 (0.31)	0.1439 (0.522)
Relational_Task_Rel_Median_RT	0.1382 (0.164)	0.06603 (0.546)	0.1111 (0.432)
Sadness_Unadj	0.1542 (0.222)	0.3237 (0.372)	0.1238 (0.118)
SCPT_FN	0.05923 (0.532)	0.07874 (0.31)	0.09294 (0.356)
SCPT_FP	0.241 (0.146)	0.07053 (0.49)	0.07273 (0.332)
SCPT_LRNR	0.01366 (0.674)	0.08844 (0.52)	0.03134 (0.564)
SCPT_SEN	0.06922 (0.524)	0.08196 (0.272)	0.05087 (0.484)
SCPT_SPEC	0.2334 (0.188)	0.07267 (0.492)	0.06018 (0.426)
SCPT_TN	0.22 (0.196)	0.08741 (0.458)	0.06836 (0.386)
SCPT_TPRT	0.05199 (0.662)	0.1634 (0.382)	0.1614 (0.32)
SCPT_TP	0.06186 (0.55)	0.09301 (0.264)	0.07083 (0.454)
SelfEff_Unadj	0.04227 (0.63)	0.1305 (0.662)	0.194 (0.142)
Social_Task_Perc_Random	0.104 (0.486)	0.1176 (0.11)	0.05152 (0.57)
Social_Task_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Perc_Unsure	0.09797 (0.45)	0.02691 (0.356)	0.05201 (0.478)
Social_Task_Random_Perc_Random	0.09483 (0.48)	0.0406 (0.36)	0.05702 (0.486)
Social_Task_Random_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Random_Perc_Unsure	0.08815 (0.478)	0.04228 (0.322)	0.06089 (0.428)
Social_Task_TOM_Median_RT_TOM	0.3015 (0.012)	0.1663 (0.23)	0.1069 (0.088)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0 (1)
SSAGA_Alc_D4_Dp_Sx	0.06558 (0.828)	0.4252 (0.012)	0.1443 (0.16)
SSAGA_BMICatHeaviest	0.159 (0.288)	0.1192 (0.556)	0.1189 (0.548)
SSAGA_BMICat	0.3859 (0.116)	0.1473 (0.626)	0.1176 (0.256)
SSAGA_ChildhoodConduct	0.06709 (0.762)	0.2302 (0.428)	0.3851 (0.198)
SSAGA_Depressive_Sx	0.002288 (0.704)	0.2861 (0.054)	0.0784 (0.544)
SSAGA_Educ	0.05787 (0.356)	0.2959 (0.05)	0.2663 (0.08)
SSAGA_Income	0.1949 (0.136)	0.0503 (0.272)	0.1406 (0.1)
SSAGA_Mj_Times_Used	0.09163 (0.792)	0.1505 (0.668)	0.0915 (0.184)
SSAGA_TB_Smoking_History	0.2324 (0.14)	0.2046 (0.094)	0.2784 (0.096)
SSAGA_Times_Used_Hallucinogens	0.1411 (0.256)	0.1755 (0.62)	0.1386 (0.104)

SSAGA_Times_Used_Illicits	0.1198 (0.288)	0.2933 (0.306)	0.1954 (0.042)
Strength_AgeAdj	0.1425 (0.15)	0.188 (0.126)	0.0927 (0.384)
Strength_Unadj	0.064 (0.46)	0.227 (0.076)	0.07327 (0.34)
Taste_AgeAdj	0.05178 (0.41)	0.03301 (0.472)	0.04399 (0.764)
Taste_Unadj	0.05798 (0.362)	0.03012 (0.446)	0.06313 (0.724)
Times_Used_Any_Tobacco_Today	0.1942 (0.288)	0.1217 (0.52)	0.1986 (0.1)
Total_Any_Tobacco_7days	0.308 (0.058)	0.1366 (0.24)	0.1799 (0.346)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.22 (0.08)	0.136 (0.344)	0.2172 (0.222)
Total_Drinks_7days	0.07618 (0.678)	0.1572 (0.24)	0.09698 (0.21)
VSPLOT_CRTE	0.0327 (0.546)	0.07958 (0.842)	0.1848 (0.068)
VSPLOT_OFF	0.1211 (0.106)	0.1706 (0.422)	0.2261 (0.134)
VSPLOT_TC	0.1051 (0.226)	0.2015 (0.618)	0.2152 (0.536)
Weight	0.1052 (0.302)	0.1063 (0.13)	0.07884 (0.72)
WM_Task_Obk_Acc	0.1351 (0.47)	0.02475 (0.688)	0.1689 (0.258)
WM_Task_Obk_Body_Acc	0.1238 (0.498)	0.07913 (0.478)	0.2745 (0.232)
WM_Task_Obk_Body_Acc_Nontarget	0.1025 (0.698)	0.02523 (0.408)	0.279 (0.284)
WM_Task_Obk_Body_Acc_Target	0.08937 (0.202)	0.1803 (0.59)	0.1702 (0.276)
WM_Task_Obk_Body_Median_RT	0.2437 (0.056)	0.2731 (0.118)	0.2004 (0.098)
WM_Task_Obk_Body_Median_RT_Nontarget	0.2239 (0.04)	0.2891 (0.04)	0.2567 (0.088)
WM_Task_Obk_Body_Median_RT_Target	0.0783 (0.434)	0.1187 (0.344)	0.07121 (0.596)
WM_Task_Obk_Face_Acc	0.08853 (0.35)	0.07376 (0.52)	0.1506 (0.128)
WM_Task_Obk_Face_ACC_Nontarget	0.02727 (0.45)	0.03046 (0.468)	0.01741 (0.12)
WM_Task_Obk_Face_Acc_Target	0.1656 (0.338)	0.1324 (0.446)	0.2163 (0.14)
WM_Task_Obk_Face_Median_RT	0.1075 (0.218)	0.2051 (0.562)	0.06655 (0.344)
WM_Task_Obk_Face_Median_RT_Nontarget	0.113 (0.198)	0.3148 (0.232)	0.1569 (0.33)
WM_Task_Obk_Face_Median_RT_Target	0.2209 (0.192)	0.1524 (0.346)	0.2047 (0.076)
WM_Task_Obk_Median_RT	0.2662 (0.032)	0.2204 (0.442)	0.2375 (0.2)
WM_Task_Obk_Place_Acc	0.04337 (0.492)	0.1119 (0.178)	0.08396 (0.752)
WM_Task_Obk_Place_Acc_Nontarget	0.06172 (0.402)	0.1492 (0.122)	0.0907 (0.728)
WM_Task_Obk_Place_Acc_Target	0.01582 (0.414)	0.01567 (0.272)	0.1201 (0.314)
WM_Task_Obk_Place_Median_RT	0.2469 (0.094)	0.1025 (0.734)	0.4055 (0.08)
WM_Task_Obk_Place_Median_RT_Nontarget	0.2629 (0.208)	0.06822 (0.828)	0.3642 (0.15)

WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1339 (0.386)	0.06022 (0.37)	0.2071 (0.256)
WM_Task_Obk_Tool_Acc_Nontarget	0.0765 (0.5)	0.04781 (0.184)	0.1469 (0.254)
WM_Task_Obk_Tool_Acc_Target	0.1835 (0.484)	0.1421 (0.758)	0.2338 (0.234)
WM_Task_Obk_Tool_Median_RT	0.3407 (0.03)	0.1672 (0.128)	0.2089 (0.226)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.3273 (0.032)	0.1259 (0.238)	0.1518 (0.224)
WM_Task_Obk_Tool_Median_RT_Target	0.05676 (0.288)	0.1836 (0.384)	0.07297 (0.536)
WM_Task_2bk_Acc	0.03801 (0.53)	0.1176 (0.214)	0.07683 (0.808)
WM_Task_2bk_Body_Acc	0.02354 (0.658)	0.1263 (0.518)	0.02631 (0.788)
WM_Task_2bk_Body_Acc_Nontarget	0.04973 (0.892)	0.1453 (0.516)	0.03934 (0.402)
WM_Task_2bk_Body_Acc_Target	0.04639 (0.428)	0.05393 (0.286)	0.0678 (0.884)
WM_Task_2bk_Body_Median_RT	0.3436 (0.116)	0.07661 (0.274)	0.06161 (0.178)
WM_Task_2bk_Body_Median_RT_Nontarget	0.2595 (0.424)	0.1083 (0.162)	0.07312 (0.108)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.123 (0.34)	0.1522 (0.152)	0.1573 (0.39)
WM_Task_2bk_Face_Acc_Nontarget	0.1762 (0.244)	0.08563 (0.384)	0.2925 (0.086)
WM_Task_2bk_Face_Acc_Target	0.1718 (0.13)	0.235 (0.32)	0.06001 (0.712)
WM_Task_2bk_Face_Median_RT	0.1273 (0.772)	0.09645 (0.646)	0.2822 (0.034)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1207 (0.48)	0.08245 (0.894)	0.2254 (0.07)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.2306 (0.19)	0.1045 (0.628)	0.1447 (0.014)
WM_Task_2bk_Place_Acc	0.06615 (0.684)	0.06839 (0.376)	0.1587 (0.82)
WM_Task_2bk_Place_Acc_Nontarget	0.1176 (0.392)	0.106 (0.478)	0.09009 (0.662)
WM_Task_2bk_Place_Acc_Target	0.1539 (0.766)	0.03016 (0.36)	0.04158 (0.606)
WM_Task_2bk_Place_Median_RT	0.1116 (0.362)	0.1141 (0.848)	0.1818 (0.056)
WM_Task_2bk_Place_Median_RT_Nontarget	0.1279 (0.312)	0.1366 (0.73)	0.1835 (0.054)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1073 (0.206)	0.1451 (0.176)	0.04247 (0.778)

WM_Task_2bk_Tool_Acc_Nontarget	0.1035 (0.388)	0.08558 (0.284)	0.04973 (0.916)
WM_Task_2bk_Tool_Acc_Target	0.1333 (0.282)	0.2384 (0.35)	0.01743 (0.828)
WM_Task_2bk_Tool_Median_RT	0.2077 (0.272)	0.05706 (0.734)	0.1154 (0.046)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.3058 (0.1)	0.04721 (0.62)	0.1321 (0.044)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.02433 (0.586)	0.1348 (0.304)	0.08545 (0.858)
WM_Task_Median_RT	0.2919 (0.09)	0.1637 (0.568)	0.1274 (0.112)
ZygotySR	0.06926 (0.872)	0.1951 (0.066)	0.0779 (0.76)

1200 volumes   20 subjects			
	tfMRI_RELATION AL	tfMRI_SOCIAL	tfMRI_W M
Age_in_Yrs	0.03616 (0.906)	0.2657 (0.146)	0.1106 (0.158)
AngAffect_Unadj	0.0581 (0.274)	0.4419 (0.098)	0.1467 (0.122)
AngAggr_Unadj	0.0223 (0.496)	0.05585 (0.902)	0.05669 (0.312)
AngHostil_Unadj	0.3271 (0.118)	0.2239 (0.216)	0.1956 (0.412)
ASR_Aggr_Raw	0.1262 (0.516)	0.1203 (0.426)	0.1879 (0.712)
ASR_Aggr_T	0.1427 (0.59)	0.1443 (0.276)	0.1806 (0.854)
ASR_Anxd_Pct	0.1848 (0.35)	0.1753 (0.112)	0.07367 (0.89)
ASR_Anxd_Raw	0.1655 (0.464)	0.2709 (0.046)	0.08467 (0.984)
ASR_Attn_Raw	0.1012 (0.464)	0.2089 (0.204)	0.0467 (0.79)
ASR_Attn_T	0.2157 (0.262)	0.2464 (0.166)	0.07461 (0.548)
ASR_Crit_Raw	0.1492 (0.14)	0.2476 (0.194)	0.1219 (0.156)
ASR_Extn_Raw	0.1727 (0.052)	0.2261 (0.594)	0.0955 (0.634)
ASR_Extn_T	0.1705 (0.04)	0.2189 (0.646)	0.09623 (0.652)
ASR_Intn_Raw	0.1075 (0.242)	0.3422 (0.036)	0.08811 (0.896)
ASR_Intn_T	0.07428 (0.284)	0.3562 (0.052)	0.06771 (0.898)

ASR_Intr_Raw	0.1377 (0.078)	0.03281 (0.884)	0.07465 (0.502)
ASR_Intr_T	0.1194 (0.256)	0.03469 (0.778)	0.1165 (0.366)
ASR_Oth_Raw	0.0869 (0.532)	0.4277 (0.204)	0.1197 (0.676)
ASR_Rule_Raw	0.1956 (0.052)	0.06756 (0.844)	0.1467 (0.598)
ASR_Rule_T	0.1416 (0.148)	0.09431 (0.78)	0.122 (0.692)
ASR_Soma_Raw	0.02235 (0.73)	0.3147 (0.036)	0.07278 (0.774)
ASR_Soma_T	0.02373 (0.408)	0.2585 (0.112)	0.07986 (0.682)
ASR_TAO_Sum	0.1255 (0.54)	0.3559 (0.05)	0.06056 (0.884)
ASR_Thot_Raw	0.3688 (0.004)	0.3782 (0.022)	0.1217 (0.06)
ASR_Thot_T	0.3027 (0.016)	0.3762 (0.034)	0.1404 (0.024)
ASR_Totp_Raw	0.1678 (0.2)	0.3962 (0.054)	0.04019 (0.924)
ASR_Totp_T	0.1251 (0.28)	0.3838 (0.152)	0.03835 (0.858)
ASR_Witd_Raw	0.07973 (0.254)	0.1273 (0.05)	0.2051 (0.19)
ASR_Witd_T	0.1216 (0.074)	0.08191 (0.066)	0.2395 (0.116)
Avg_Weekday_Any_Tobacco_7days	0.3866 (0.058)	0.07322 (0.384)	0.02311 (0.826)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.34 (0.104)	0.105 (0.294)	0.03428 (0.834)
Avg_Weekday_Drinks_7days	0.05562 (0.066)	0.162 (0.168)	0.1274 (0.256)
Avg_Weekend_Any_Tobacco_7days	0.4032 (0.04)	0.07482 (0.404)	0.04653 (0.76)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0.3508 (0.066)	0.08679 (0.336)	0.03096 (0.82)
Avg_Weekend_Drinks_7days	0.1275 (0.104)	0.06401 (0.426)	0.08713 (0.558)
BMI	0.1276 (0.758)	0.04439 (0.31)	0.1953 (0.444)
BPDiastolic	0.0868 (0.102)	0.1089 (0.204)	0.1032 (0.696)
BPSystolic	0.03371 (0.148)	0.01169 (0.792)	0.03599 (0.938)
CardSort_AgeAdj	0.07585 (0.38)	0.08336 (0.88)	0.06709 (0.446)

CardSort_Unadj	0.081 (0.438)	0.1043 (0.866)	0.07697 (0.42)
CogCrystalComp_AgeAdj	0.2815 (0.106)	0.1233 (0.642)	0.2113 (0.216)
CogCrystalComp_Unadj	0.3225 (0.054)	0.1273 (0.586)	0.1348 (0.384)
CogEarlyComp_AgeAdj	0.08585 (0.138)	0.09688 (0.33)	0.0473 (0.582)
CogEarlyComp_Unadj	0.1101 (0.138)	0.09373 (0.32)	0.04803 (0.674)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.3612 (0.19)	0.06124 (0.322)	0.1548 (0.196)
DDisc_AUC_40K	0.2042 (0.468)	0.1907 (0.584)	0.1457 (0.832)
DDisc_SV_10yr_200	0.2333 (0.248)	0.07045 (0.166)	0.09449 (0.338)
DDisc_SV_10yr_40K	0.1905 (0.368)	0.1515 (0.784)	0.2023 (0.692)
DDisc_SV_1mo_200	0.1708 (0.99)	0.1158 (0.418)	0.4048 (0.024)
DDisc_SV_1mo_40K	0.3641 (0.018)	0.1213 (0.712)	0.04073 (0.34)
DDisc_SV_1yr_200	0.4577 (0.288)	0.11 (0.168)	0.1804 (0.444)
DDisc_SV_1yr_40K	0.0556 (0.902)	0.06134 (0.648)	0.04216 (0.978)
DDisc_SV_3yr_200	0.3071 (0.21)	0.04467 (0.254)	0.2493 (0.064)
DDisc_SV_3yr_40K	0.133 (0.764)	0.1603 (0.306)	0.1203 (0.734)
DDisc_SV_5yr_200	0.2747 (0.198)	0.08176 (0.43)	0.1086 (0.274)
DDisc_SV_5yr_40K	0.2525 (0.278)	0.1528 (0.54)	0.1776 (0.628)
DDisc_SV_6mo_200	0.4621 (0.136)	0.1821 (0.48)	0.3795 (0.314)
DDisc_SV_6mo_40K	0.09262 (0.998)	0.1663 (0.896)	0.073 (0.946)
Dexterity_AgeAdj	0.08825 (0.722)	0.04334 (0.762)	0.02028 (0.854)
Dexterity_Unadj	0.1147 (0.708)	0.07392 (0.674)	0.03086 (0.842)
DSM_Adh_Raw	0.04036 (0.8)	0.09975 (0.148)	0.02995 (0.874)

DSM_Adh_T	0.0576 (0.734)	0.1044 (0.206)	0.02441 (0.758)
DSM_Antis_Raw	0.251 (0.116)	0.05405 (0.72)	0.04875 (0.798)
DSM_Antis_T	0.3043 (0.272)	0.0741 (0.676)	0.04254 (0.946)
DSM_Anxi_Raw	0.1209 (0.32)	0.274 (0.024)	0.05139 (0.876)
DSM_Anxi_T	0.1289 (0.322)	0.2506 (0.024)	0.0956 (0.532)
DSM_Avoid_Raw	0.05001 (0.716)	0.1133 (0.068)	0.04391 (0.948)
DSM_Avoid_T	0.05603 (0.634)	0.08733 (0.08)	0.07678 (0.846)
DSM_Depr_Raw	0.1743 (0.14)	0.1332 (0.246)	0.1005 (0.72)
DSM_Depr_T	0.1589 (0.244)	0.1492 (0.218)	0.1125 (0.686)
DSM_Hype_Raw	0.09302 (0.79)	0.1274 (0.386)	0.06851 (0.76)
DSM_Inat_Raw	0.1679 (0.162)	0.05892 (0.244)	0.07929 (0.81)
DSM_Somp_Raw	0.03666 (0.55)	0.2934 (0.088)	0.05297 (0.764)
DSM_Somp_T	0.04831 (0.438)	0.3216 (0.076)	0.04987 (0.732)
Emotion_Task_Acc	0.01541 (0.71)	0.1606 (0.162)	0.04156 (0.358)
Emotion_Task_Face_Acc	0.3828 (0.018)	0.1166 (0.438)	0.1652 (0.232)
Emotion_Task_Face_Median_RT	0.03583 (0.298)	0.1165 (0.404)	0.05633 (0.43)
Emotion_Task_Median_RT	0.03285 (0.234)	0.1943 (0.25)	0.1023 (0.426)
Emotion_Task_Shape_Acc	0.02392 (0.744)	0.3019 (0.034)	0.04564 (0.19)
Emotion_Task_Shape_Median_RT	0.1407 (0.114)	0.2198 (0.3)	0.1621 (0.524)
EmotSupp_Unadj	0.3032 (0.01)	0.04291 (0.37)	0.09831 (0.77)
Endurance_AgeAdj	0.08679 (0.292)	0.09076 (0.672)	0.02133 (0.374)
Endurance_Unadj	0.09791 (0.368)	0.09918 (0.708)	0.04061 (0.368)
ER40ANG	0.03308 (0.436)	0.1641 (0.308)	0.02915 (0.528)
ER40FEAR	0.03965 (0.232)	0.05214 (0.146)	0.1215 (0.592)
ER40NOE	0.1395 (0.162)	0.2265 (0.108)	0.08912 (0.626)



ER40SAD	0.1291 (0.03)	0.218 (0.142)	0.09807 (0.208)
ER40_CRT	0.1794 (0.148)	0.07036 (0.948)	0.08891 (0.44)
ER40_CR	0.04461 (0.234)	0.1698 (0.138)	0.07445 (0.582)
EVA_Denom	0.3804 (0.022)	0.1345 (0.508)	0.2975 (0.014)
FearAffect_Unadj	0.04268 (0.496)	0.1124 (0.106)	0.08861 (0.13)
FearSomat_Unadj	0.05779 (0.164)	0.2427 (0.616)	0.03986 (0.352)
Flanker_AgeAdj	0.03064 (0.342)	0.1245 (0.056)	0.1178 (0.67)
Flanker_Unadj	0.007909 (0.396)	0.1525 (0.034)	0.1178 (0.604)
Friendship_Unadj	0.3814 (0.026)	0.1274 (0.142)	0.2154 (0.368)
GaitSpeed_Comp	0.02818 (0.266)	0.1527 (0.116)	0.1732 (0.356)
Gambling_Task_Median_RT_Larger	0.182 (0.102)	0.09809 (0.332)	0.2657 (0.316)
Gambling_Task_Median_RT_Smaller	0.2062 (0.038)	0.3009 (0.104)	0.1539 (0.36)
Gambling_Task_Perc_Larger	0.03948 (0.718)	0.2548 (0.174)	0.217 (0.208)
Gambling_Task_Perc_Smaller	0.04636 (0.682)	0.2442 (0.182)	0.1993 (0.202)
Gambling_Task_Punish_Median_RT_Larger	0.2478 (0.108)	0.1268 (0.332)	0.301 (0.22)
Gambling_Task_Punish_Median_RT_Smaller	0.1512 (0.168)	0.2384 (0.16)	0.1987 (0.246)
Gambling_Task_Punish_Perc_Larger	0.03109 (0.72)	0.1399 (0.326)	0.04894 (0.696)
Gambling_Task_Punish_Perc_Smaller	0.02897 (0.722)	0.1492 (0.316)	0.06195 (0.628)
Gambling_Task_Reward_Median_RT_Larger	0.13 (0.108)	0.08136 (0.34)	0.2275 (0.428)
Gambling_Task_Reward_Median_RT_Smaller	0.2185 (0.018)	0.2205 (0.208)	0.1076 (0.444)
Gambling_Task_Reward_Perc_Larger	0.07865 (0.43)	0.1056 (0.298)	0.337 (0.13)
Gambling_Task_Reward_Perc_Smaller	0.0949 (0.38)	0.08515 (0.364)	0.3653 (0.128)
Handedness	0.1512 (0.778)	0.2798 (0.004)	0.08049 (0.502)
Height	0.2747 (0.074)	0.06174 (0.888)	0.2743 (0.33)

InstruSupp_Unadj	0.2179 (0.188)	0.0703 (0.482)	0.215 (0.134)
IWRD_RTC	0.05261 (0.378)	0.01973 (0.586)	0.07418 (0.498)
IWRD_TOT	0.09058 (0.374)	0.08985 (0.842)	0.04608 (0.56)
Language_Task_Acc	0.4487 (0.07)	0.08718 (0.38)	0.2339 (0.272)
Language_Task_Math_Acc	0.3778 (0.044)	0.05744 (0.334)	0.2591 (0.41)
Language_Task_Math_Avg_Difficulty_Level	0.08728 (0.504)	0.09757 (0.59)	0.08125 (0.718)
Language_Task_Math_Median_RT	0.1828 (0.366)	0.04433 (0.432)	0.08767 (0.154)
Language_Task_Median_RT	0.1999 (0.182)	0.04573 (0.474)	0.07455 (0.154)
Language_Task_Story_Acc	0.1674 (0.726)	0.1654 (0.52)	0.2961 (0.016)
Language_Task_Story_Avg_Difficulty_Level	0.4884 (0.328)	0.02047 (0.546)	0.3316 (0.36)
Language_Task_Story_Median_RT	0.1448 (0.154)	0.04382 (0.704)	0.1437 (0.096)
LifeSatisf_Unadj	0.1575 (0.572)	0.1238 (0.03)	0.186 (0.322)
ListSort_AgeAdj	0.2295 (0.098)	0.03797 (0.404)	0.1922 (0.38)
ListSort_Unadj	0.2877 (0.048)	0.041 (0.326)	0.126 (0.722)
Loneliness_Unadj	0.197 (0.164)	0.0626 (0.37)	0.1456 (0.698)
Mars_Errs	0.1742 (0.05)	0.2921 (0.016)	0.1425 (0.91)
Mars_Final	0.06513 (0.43)	0.1304 (0.66)	0.04034 (0.256)
Mars_Log_Score	0.04592 (0.366)	0.1188 (0.614)	0.03285 (0.342)
MeanPurp_Unadj	0.09377 (0.434)	0.04717 (0.374)	0.138 (0.224)
MMSE_Score	0.06976 (0.932)	0.1972 (0.426)	0.02515 (0.878)
Noise_Comp	0.313 (0.358)	0.2297 (0.142)	0.1078 (0.344)
Num_Days_Drank_7days	0.05275 (0.16)	0.08774 (0.43)	0.08515 (0.456)
Num_Days_Used_Any_Tobacco_7days	0.4999 (0.006)	0.08813 (0.364)	0.05863 (0.562)
Odor_AgeAdj	0.08622 (0.616)	0.08369 (0.518)	0.1718 (0.536)
Odor_Unadj	0.07232 (0.488)	0.08187 (0.366)	0.1707 (0.436)

PainIntens_RawScore	0.08055 (0.156)	0.04209 (0.73)	0.3762 (0.024)
PainInterf_Tscore	0.1106 (0.068)	0.2192 (0.144)	0.2077 (0.226)
PercHostil_Unadj	0.3406 (0.01)	0.08627 (0.44)	0.09543 (0.356)
PercReject_Unadj	0.2853 (0.004)	0.01566 (0.88)	0.09632 (0.17)
PercStress_Unadj	0.1528 (0.142)	0.2694 (0.05)	0.09303 (0.902)
PicSeq_AgeAdj	0.05803 (0.382)	0.06874 (0.562)	0.0349 (0.832)
PicSeq_Unadj	0.05453 (0.456)	0.07222 (0.472)	0.03047 (0.846)
PicVocab_AgeAdj	0.4027 (0.016)	0.1313 (0.658)	0.1904 (0.218)
PicVocab_Unadj	0.3497 (0.014)	0.1793 (0.494)	0.1755 (0.358)
PMAT24_A_CR	0.0869 (0.126)	0.05006 (0.432)	0.09314 (0.388)
PMAT24_A_RTcr	0.1007 (0.18)	0.08945 (0.284)	0.1983 (0.06)
PMAT24_A_Sl	0.1518 (0.068)	0.03224 (0.688)	0.09176 (0.552)
PosAffect_Unadj	0.2209 (0.094)	0.04384 (0.386)	0.06272 (0.55)
ProcSpeed_AgeAdj	0.0827 (0.316)	0.04773 (0.606)	0.06342 (0.254)
ProcSpeed_Unadj	0.09732 (0.332)	0.1363 (0.542)	0.08173 (0.198)
PSQI_AmtSleep	0.1192 (0.696)	0.0488 (0.364)	0.1329 (0.294)
PSQI_BadDream	0.07893 (0.716)	0.1257 (0.436)	0.09104 (0.168)
PSQI_Bathroom	0.2939 (0.008)	0.2231 (0.036)	0.2682 (0.014)
PSQI_BedPtnrRmate	0.08818 (0.448)	0.0594 (0.5)	0.0706 (0.418)
PSQI_BedTime	0.149 (0.286)	0.1109 (0.71)	0.0223 (0.704)
PSQI_Breathe	0.001741 (p < 0.00017)	0.002901 (p < 0.00017)	0 (1)
PSQI_Comp1	0.2443 (0.156)	0.2042 (0.306)	0.03997 (0.196)
PSQI_Comp2	0.3097 (0.512)	0.0965 (0.694)	0.2319 (0.2)
PSQI_Comp3	0.2486 (0.336)	0.06255 (0.344)	0.118 (0.456)
PSQI_Comp4	0.09722 (0.046)	0.03775 (0.326)	0.1117 (0.32)

PSQI_Comp5	0 (1)	0 (1)	0 (1)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.09299 (0.656)	0.3217 (0.024)	0.132 (0.45)
PSQI_DayEnthusiasm	0.08772 (0.782)	0.4065 (0.02)	0.08033 (0.768)
PSQI_DayStayAwake	0.09458 (0.258)	0.03714 (0.44)	0.2077 (0.478)
PSQI_GetUpTime	0.1072 (0.204)	0.06749 (0.692)	0.01381 (0.364)
PSQI_Latency30Min	0.2285 (0.53)	0.1388 (0.744)	0.1898 (0.094)
PSQI_Min2Asleep	0.4028 (0.042)	0.1728 (0.076)	0.1707 (0.256)
PSQI_Other	0.1565 (0.282)	0.1354 (0.016)	0.193 (0.274)
PSQI_Pain	0.2934 (0.136)	0.2182 (0.478)	0.1504 (0.428)
PSQI_Quality	0.2311 (0.17)	0.2206 (0.304)	0.05266 (0.142)
PSQI_Score	0.3915 (0.398)	0.09828 (0.81)	0.2142 (0.054)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0 (1)	0.004062 (p < 0.00017)	0 (1)
PSQI_TooCold	0.2376 (0.22)	0.01924 (0.662)	0.08135 (0.194)
PSQI_TooHot	0.3592 (0.414)	0.1641 (0.114)	0.1398 (0.678)
PSQI_WakeUp	0.03476 (0.736)	0.3131 (0.138)	0.1458 (0.116)
Race	0.1372 (0.094)	0.155 (0.164)	0.1384 (0.348)
ReadEng_AgeAdj	0.2193 (0.29)	0.1133 (0.69)	0.09997 (0.526)
ReadEng_Unadj	0.168 (0.376)	0.1088 (0.73)	0.1045 (0.526)
Relational_Task_Acc	0.0184 (0.386)	0.02691 (0.668)	0.04384 (0.26)
Relational_Task_Match_Acc	0.07659 (0.244)	0.05416 (0.512)	0.0338 (0.266)
Relational_Task_Match_Median_RT	0.1375 (0.13)	0.1636 (0.804)	0.1192 (0.306)
Relational_Task_Median_RT	0.1308 (0.19)	0.1773 (0.216)	0.1427 (0.318)
Relational_Task_Rel_Acc	0.04538 (0.152)	0.02615 (0.652)	0.059 (0.48)
Relational_Task_Rel_Median_RT	0.1152 (0.276)	0.1671 (0.078)	0.1771 (0.268)

Sadness_Unadj	0.0815 (0.744)	0.1793 (0.252)	0.1193 (0.786)
SCPT_FN	0.2629 (0.114)	0.09962 (0.684)	0.1022 (0.22)
SCPT_FP	0.06346 (0.586)	0.2025 (0.366)	0.04876 (0.76)
SCPT_LRNR	0.1323 (0.716)	0.1118 (0.192)	0.1083 (0.308)
SCPT_SEN	0.2512 (0.128)	0.1311 (0.61)	0.09164 (0.254)
SCPT_SPEC	0.056 (0.598)	0.1846 (0.468)	0.08854 (0.74)
SCPT_TN	0.05445 (0.612)	0.1608 (0.47)	0.06731 (0.764)
SCPT_TPRT	0.2671 (0.076)	0.07351 (0.548)	0.2116 (0.37)
SCPT_TP	0.2818 (0.076)	0.1341 (0.578)	0.1136 (0.192)
SelfEff_Unadj	0.09704 (0.446)	0.1581 (0.554)	0.0381 (0.962)
Social_Task_Perc_Random	0.1374 (0.482)	0.2601 (0.354)	0.0518 (0.28)
Social_Task_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Perc_Unsure	0.1252 (0.424)	0.1989 (0.388)	0.05972 (0.258)
Social_Task_Random_Perc_Random	0.1187 (0.404)	0.2021 (0.346)	0.04268 (0.298)
Social_Task_Random_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_Random_Perc_Unsure	0.1183 (0.43)	0.1618 (0.516)	0.05961 (0.292)
Social_Task_TOM_Median_RT_TOM	0.2528 (0.17)	0.1776 (0.04)	0.1622 (0.604)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0 (1)
SSAGA_Alc_D4_Dp_Sx	0.2773 (0.306)	0.1177 (0.56)	0.08673 (0.148)
SSAGA_BMICatHeaviest	0.07705 (0.784)	0.1858 (0.058)	0.06411 (0.738)
SSAGA_BMICat	0.2214 (0.48)	0.145 (0.162)	0.06618 (0.678)
SSAGA_ChildhoodConduct	0.0701 (0.332)	0.05548 (0.604)	0.04537 (0.662)
SSAGA_Depressive_Sx	0.009794 (0.312)	0.1009 (0.25)	0.05662 (0.48)
SSAGA_Educ	0.3423 (0.038)	0.3132 (0.478)	0.1135 (0.1)
SSAGA_Income	0.04886 (0.502)	0.12 (0.366)	0.04592 (0.522)

SSAGA_Mj_Times_Used	0.1034 (0.144)	0.2086 (0.32)	0.1259 (0.472)
SSAGA_TB_Smoking_History	0.3465 (0.092)	0.1131 (0.424)	0.1527 (0.572)
SSAGA_Times_Used_Hallucinogens	0.04985 (0.39)	0.3232 (0.026)	0.2913 (0.414)
SSAGA_Times_Used_Illicits	0.1044 (0.26)	0.293 (0.012)	0.3354 (0.222)
Strength_AgeAdj	0.1246 (0.172)	0.2599 (0.26)	0.05488 (0.874)
Strength_Unadj	0.1245 (0.28)	0.2642 (0.442)	0.1101 (0.718)
Taste_AgeAdj	0.07363 (0.554)	0.3506 (0.004)	0.1604 (0.77)
Taste_Unadj	0.08327 (0.608)	0.3153 (0.008)	0.1266 (0.762)
Times_Used_Any_Tobacco_Today	0.2438 (0.102)	0.1305 (0.21)	0.09909 (0.844)
Total_Any_Tobacco_7days	0.4135 (0.03)	0.06499 (0.38)	0.02123 (0.852)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.3197 (0.12)	0.08846 (0.308)	0.0339 (0.806)
Total_Drinks_7days	0.09661 (0.076)	0.1448 (0.2)	0.09345 (0.674)
VSPLOT_CRTE	0.06861 (0.61)	0.165 (0.67)	0.078 (0.23)
VSPLOT_OFF	0.3154 (0.032)	0.1984 (0.062)	0.0519 (0.504)
VSPLOT_TC	0.325 (0.012)	0.1992 (0.058)	0.05076 (0.636)
Weight	0.1693 (0.766)	0.1106 (0.25)	0.2594 (0.808)
WM_Task_Obk_Acc	0.1344 (0.61)	0.05055 (0.668)	0.1999 (0.572)
WM_Task_Obk_Body_Acc	0.1164 (0.676)	0.1598 (0.208)	0.1439 (0.472)
WM_Task_Obk_Body_Acc_Nontarget	0.04717 (0.508)	0.2069 (0.176)	0.1122 (0.34)
WM_Task_Obk_Body_Acc_Target	0.361 (0.13)	0.1239 (0.144)	0.167 (0.544)
WM_Task_Obk_Body_Median_RT	0.06482 (0.618)	0.1012 (0.364)	0.1597 (0.144)
WM_Task_Obk_Body_Median_RT_Nontarget	0.07415 (0.524)	0.1409 (0.308)	0.1052 (0.242)
WM_Task_Obk_Body_Median_RT_Target	0.05751 (0.418)	0.02221 (0.66)	0.07049 (0.724)
WM_Task_Obk_Face_Acc	0.07934 (0.468)	0.2634 (0.068)	0.09622 (0.45)

WM_Task_Obk_Face_ACC_Nontarget	0.1857 (0.32)	0.08936 (0.31)	0.1068 (0.14)
WM_Task_Obk_Face_Acc_Target	0.1032 (0.14)	0.2772 (0.046)	0.1 (0.548)
WM_Task_Obk_Face_Median_RT	0.06379 (0.756)	0.1092 (0.41)	0.1475 (0.256)
WM_Task_Obk_Face_Median_RT_Nontarget	0.05576 (0.634)	0.135 (0.326)	0.178 (0.324)
WM_Task_Obk_Face_Median_RT_Target	0.3064 (0.262)	0.2982 (0.086)	0.1817 (0.2)
WM_Task_Obk_Median_RT	0.09976 (0.314)	0.1181 (0.5)	0.12 (0.324)
WM_Task_Obk_Place_Acc	0.043 (0.684)	0.04947 (0.866)	0.1212 (0.358)
WM_Task_Obk_Place_Acc_Nontarget	0.1192 (0.528)	0.03432 (0.786)	0.04452 (0.356)
WM_Task_Obk_Place_Acc_Target	0.047 (0.61)	0.04903 (0.668)	0.2396 (0.4)
WM_Task_Obk_Place_Median_RT	0.07315 (0.36)	0.05876 (0.59)	0.08652 (0.498)
WM_Task_Obk_Place_Median_RT_Nontarget	0.0921 (0.274)	0.08377 (0.376)	0.0891 (0.364)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1045 (0.738)	0.1118 (0.194)	0.2457 (0.102)
WM_Task_Obk_Tool_Acc_Nontarget	0.09015 (0.742)	0.03057 (0.192)	0.1763 (0.192)
WM_Task_Obk_Tool_Acc_Target	0.118 (0.562)	0.2117 (0.196)	0.2286 (0.128)
WM_Task_Obk_Tool_Median_RT	0.09555 (0.424)	0.09542 (0.294)	0.1679 (0.134)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.06518 (0.364)	0.1076 (0.212)	0.1852 (0.176)
WM_Task_Obk_Tool_Median_RT_Target	0.2441 (0.04)	0.1689 (0.168)	0.0603 (0.778)
WM_Task_2bk_Acc	0.05747 (0.798)	0.03202 (0.6)	0.1565 (0.928)
WM_Task_2bk_Body_Acc	0.3076 (0.086)	0.03212 (0.862)	0.1067 (0.752)
WM_Task_2bk_Body_Acc_Nontarget	0.2682 (0.014)	0.06351 (0.58)	0.1464 (0.792)
WM_Task_2bk_Body_Acc_Target	0.07981 (0.256)	0.08024 (0.552)	0.08186 (0.922)
WM_Task_2bk_Body_Median_RT	0.02918 (0.776)	0.3054 (0.038)	0.2397 (0.24)
WM_Task_2bk_Body_Median_RT_Nontarget	0.03803 (0.748)	0.3055 (0.092)	0.2309 (0.218)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)

WM_Task_2bk_Face_Acc	0.07988 (0.576)	0.003295 (0.708)	0.07836 (0.678)
WM_Task_2bk_Face_Acc_Nontarget	0.1204 (0.494)	0.01573 (0.802)	0.1049 (0.41)
WM_Task_2bk_Face_Acc_Target	0.1232 (0.088)	0.0291 (0.294)	0.05632 (0.62)
WM_Task_2bk_Face_Median_RT	0.1083 (0.592)	0.2855 (0.2)	0.1715 (0.128)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1312 (0.532)	0.19 (0.356)	0.1859 (0.084)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.031 (0.794)	0.3285 (0.078)	0.162 (0.302)
WM_Task_2bk_Place_Acc	0.1226 (0.816)	0.1535 (0.044)	0.1917 (0.992)
WM_Task_2bk_Place_Acc_Nontarget	0.189 (0.58)	0.1417 (0.508)	0.2276 (0.69)
WM_Task_2bk_Place_Acc_Target	0.1626 (0.13)	0.04871 (0.11)	0.0979 (0.754)
WM_Task_2bk_Place_Median_RT	0.04558 (0.492)	0.2432 (0.158)	0.2202 (0.158)
WM_Task_2bk_Place_Median_RT_Nontarget	0.05476 (0.458)	0.2286 (0.138)	0.1777 (0.17)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.0578 (0.794)	0.1555 (0.304)	0.1508 (0.978)
WM_Task_2bk_Tool_Acc_Nontarget	0.141 (0.356)	0.1611 (0.474)	0.3164 (0.882)
WM_Task_2bk_Tool_Acc_Target	0.08467 (0.99)	0.06986 (0.468)	0.08242 (0.948)
WM_Task_2bk_Tool_Median_RT	0.05773 (0.774)	0.4311 (0.002)	0.1863 (0.33)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.03082 (0.804)	0.4628 (0.006)	0.1329 (0.404)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.05082 (0.822)	0.05179 (0.654)	0.1765 (0.888)
WM_Task_Median_RT	0.03976 (0.644)	0.2726 (0.086)	0.1695 (0.312)
ZygotitySR	0.3613 (0.002)	0.1319 (0.782)	0.2063 (0.4)



1200 volumes | 50 subjects

1200 volumes   50 subjects			
	allrest	allscans	alltask
Age_in_Yrs	0.01522 (1)	0.1062 (0.762)	0.1203 (0.37)
AngAffect_Unadj	0.0157 (0.91)	0.09677 (0.076)	0.1 (0.116)
AngAggr_Unadj	0.005171 (0.696)	0.008858 (0.136)	0.02108 (0.092)
AngHostil_Unadj	0.01215 (0.732)	0.02543 (0.176)	0.03195 (0.158)
ASR_Aggr_Raw	0.04337 (0.96)	0.1954 (0.102)	0.2093 (0.088)
ASR_Aggr_T	0.03496 (0.996)	0.1756 (0.19)	0.2259 (0.102)
ASR_Anxd_Pct	0.06729 (0.814)	0.1254 (0.096)	0.1511 (0.038)
ASR_Anxd_Raw	0.04042 (0.98)	0.1017 (0.092)	0.1114 (0.074)
ASR_Attn_Raw	0.06032 (0.982)	0.1512 (0.174)	0.16 (0.088)
ASR_Attn_T	0.05942 (0.974)	0.1355 (0.27)	0.1521 (0.238)
ASR_Crit_Raw	0.02166 (0.968)	0.08256 (0.832)	0.08086 (0.794)
ASR_Extn_Raw	0.04159 (0.638)	0.1355 (0.124)	0.1386 (0.146)
ASR_Extn_T	0.04363 (0.61)	0.1182 (0.164)	0.1343 (0.09)
ASR_Intn_Raw	0.06152 (0.946)	0.09193 (0.096)	0.09789 (0.078)
ASR_Intn_T	0.07249 (0.862)	0.07631 (0.066)	0.06138 (0.082)
ASR_Intr_Raw	0.06437 (0.148)	0.1406 (0.044)	0.1202 (0.07)
ASR_Intr_T	0.05718 (0.212)	0.0689 (0.4)	0.07145 (0.41)
ASR_Oth_Raw	0.04333 (0.888)	0.08282 (0.316)	0.0793 (0.3)
ASR_Rule_Raw	0.02531 (0.492)	0.132 (0.452)	0.1658 (0.294)
ASR_Rule_T	0.02533 (0.552)	0.1163 (0.386)	0.1335 (0.384)
ASR_Soma_Raw	0.1055 (0.188)	0.09467 (0.078)	0.04816 (0.212)
ASR_Soma_T	0.1376 (0.032)	0.03578 (0.228)	0.03912 (0.274)
ASR_TAO_Sum	0.04259 (0.99)	0.1166 (0.416)	0.1404 (0.224)
ASR_Thot_Raw	0.01455 (0.948)	0.04986 (0.876)	0.06498 (0.794)

ASR_Thot_T	0.02697 (0.906)	0.07011 (0.686)	0.08069 (0.532)
ASR_Totp_Raw	0.05968 (0.966)	0.1327 (0.098)	0.1664 (0.036)
ASR_Totp_T	0.06675 (0.96)	0.1069 (0.126)	0.1393 (0.052)
ASR_Witd_Raw	0.01763 (0.846)	0.07603 (0.126)	0.05146 (0.102)
ASR_Witd_T	0.02024 (0.822)	0.07298 (0.102)	0.08656 (0.038)
Avg_Weekday_Any_Tobacco_7days	0.08156 (0.12)	0.1623 (0.134)	0.1744 (0.202)
Avg_Weekday_Chew_7days	0 (1)	0.06963 (0.4)	0.09228 (0.326)
Avg_Weekday_Cigarettes_7days	0.1168 (0.11)	0.09562 (0.444)	0.108 (0.474)
Avg_Weekday_Drinks_7days	0.05092 (0.62)	0.07078 (0.264)	0.04851 (0.446)
Avg_Weekend_Any_Tobacco_7days	0.07235 (0.152)	0.1345 (0.228)	0.154 (0.234)
Avg_Weekend_Chew_7days	0 (1)	0.06001 (0.382)	0.05605 (0.4)
Avg_Weekend_Cigarettes_7days	0.09273 (0.248)	0.09421 (0.44)	0.1023 (0.444)
Avg_Weekend_Drinks_7days	0.08698 (0.138)	0.07746 (0.606)	0.06244 (0.736)
BMI	0.03335 (0.902)	0.1763 (p < 0.00017)	0.1881 (0.002)
BPDiastolic	0.06584 (0.174)	0.03772 (0.504)	0.02726 (0.552)
BPSystolic	0.04396 (0.59)	0.1939 (0.354)	0.2235 (0.178)
CardSort_AgeAdj	0.07865 (0.94)	0.04403 (0.802)	0.03792 (0.674)
CardSort_Unadj	0.07094 (0.984)	0.05852 (0.908)	0.0735 (0.654)
CogCrystalComp_AgeAdj	0.07155 (0.77)	0.03008 (0.55)	0.04879 (0.502)
CogCrystalComp_Unadj	0.08859 (0.574)	0.04581 (0.488)	0.03678 (0.55)
CogEarlyComp_AgeAdj	0.1057 (0.284)	0.007438 (0.504)	0.001962 (0.38)
CogEarlyComp_Unadj	0.0918 (0.444)	0.003889 (0.558)	0.005685 (0.366)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.0584 (0.674)	0.2243 (0.08)	0.2154 (0.038)
DDisc_AUC_40K	0.08702 (0.588)	0.2371 (0.006)	0.2456 (0.006)

DDisc_SV_10yr_200	0.04186 (0.878)	0.1349 (0.264)	0.1398 (0.138)
DDisc_SV_10yr_40K	0.05027 (0.586)	0.2112 (0.01)	0.2367 (0.004)
DDisc_SV_1mo_200	0.07907 (0.324)	0.1565 (0.13)	0.1086 (0.276)
DDisc_SV_1mo_40K	0.0758 (0.044)	0.03466 (0.17)	0.06675 (0.124)
DDisc_SV_1yr_200	0.1005 (0.442)	0.2528 (0.008)	0.2809 (p < 0.00017)
DDisc_SV_1yr_40K	0.0644 (0.664)	0.0941 (0.01)	0.07413 (0.024)
DDisc_SV_3yr_200	0.04552 (0.542)	0.1761 (0.062)	0.1712 (0.09)
DDisc_SV_3yr_40K	0.04952 (0.92)	0.1958 (0.022)	0.1864 (0.018)
DDisc_SV_5yr_200	0.01998 (0.802)	0.1686 (0.26)	0.1444 (0.306)
DDisc_SV_5yr_40K	0.1104 (0.216)	0.2129 (0.02)	0.2938 (0.004)
DDisc_SV_6mo_200	0.07643 (0.256)	0.1585 (0.028)	0.1801 (0.026)
DDisc_SV_6mo_40K	0.1513 (0.284)	0.1774 (0.014)	0.1911 (0.022)
Dexterity_AgeAdj	0.05523 (0.358)	0.1513 (0.02)	0.1398 (0.022)
Dexterity_Unadj	0.06497 (0.406)	0.1681 (0.058)	0.1665 (0.018)
DSM_Adh_Raw	0.08401 (0.952)	0.1579 (0.086)	0.1771 (0.032)
DSM_Adh_T	0.04654 (0.956)	0.1537 (0.138)	0.2027 (0.09)
DSM_Antis_Raw	0.01639 (0.504)	0.1683 (0.018)	0.1435 (0.014)
DSM_Antis_T	0.02646 (0.74)	0.1621 (0.038)	0.208 (0.012)
DSM_Anxi_Raw	0.02111 (0.902)	0.05073 (0.592)	0.04826 (0.536)
DSM_Anxi_T	0.03024 (0.92)	0.07281 (0.552)	0.1284 (0.3)
DSM_Avoid_Raw	0.03179 (0.964)	0.07686 (0.2)	0.1067 (0.094)
DSM_Avoid_T	0.03902 (0.93)	0.1701 (0.064)	0.1436 (0.068)
DSM_Depr_Raw	0.06666 (0.814)	0.06966 (0.466)	0.06633 (0.356)
DSM_Depr_T	0.07394 (0.756)	0.08864 (0.466)	0.0859 (0.4)
DSM_Hype_Raw	0.07932 (0.734)	0.1527 (0.09)	0.1347 (0.096)
DSM_Inat_Raw	0.03489 (0.984)	0.1104 (0.23)	0.1413 (0.106)
DSM_Somp_Raw	0.1113 (0.056)	0.04411 (0.034)	0.04147 (0.054)

DSM_Somp_T	0.1494 (0.034)	0.06197 (0.026)	0.04379 (0.086)
Emotion_Task_Acc	0.02958 (0.546)	0.0006479 (0.264)	0.002169 (0.256)
Emotion_Task_Face_Acc	0.002629 (0.77)	0.04852 (0.934)	0.04452 (0.924)
Emotion_Task_Face_Median_RT	0.1924 (0.976)	0.05045 (0.866)	0.03888 (0.628)
Emotion_Task_Median_RT	0.1585 (0.974)	0.04751 (0.932)	0.05088 (0.714)
Emotion_Task_Shape_Acc	0.1042 (0.498)	0.01019 (0.316)	0.009487 (0.364)
Emotion_Task_Shape_Median_RT	0.1113 (0.886)	0.03653 (0.926)	0.04349 (0.73)
EmotSupp_Unadj	0.2283 (0.106)	0.119 (0.056)	0.03701 (0.204)
Endurance_AgeAdj	0.1128 (0.066)	0.1573 (p < 0.00017)	0.0979 (0.016)
Endurance_Unadj	0.09213 (0.098)	0.1601 (0.002)	0.1103 (0.016)
ER40ANG	0.04693 (0.672)	0.02704 (0.638)	0.02696 (0.68)
ER40FEAR	0.0436 (0.726)	0.14 (0.192)	0.1754 (0.078)
ER40NOE	0.3214 (0.058)	0.07786 (0.8)	0.056 (0.87)
ER40SAD	0.01556 (0.636)	0.006272 (0.344)	0.0246 (0.218)
ER40_CRT	0.04757 (0.622)	0.004458 (0.362)	0.0008655 (0.406)
ER40_CR	0.09271 (0.706)	0.0576 (0.892)	0.03045 (0.91)
EVA_Denom	0.06272 (0.91)	0.1003 (0.2)	0.06832 (0.19)
FearAffect_Unadj	0.02165 (0.978)	0.01327 (0.674)	0.01202 (0.53)
FearSomat_Unadj	0.1565 (0.26)	0.09938 (0.124)	0.06926 (0.174)
Flanker_AgeAdj	0.1734 (0.024)	0.025 (0.14)	0.03369 (0.106)
Flanker_Unadj	0.1608 (0.04)	0.04057 (0.188)	0.05154 (0.122)
Friendship_Unadj	0.06428 (0.186)	0.0456 (0.39)	0.04849 (0.464)
GaitSpeed_Comp	0.01156 (0.458)	0.04635 (0.054)	0.04395 (0.086)
Gambling_Task_Median_RT_Larger	0.06211 (0.036)	0.2432 (0.002)	0.2843 (p < 0.00017)
Gambling_Task_Median_RT_Smaller	0.027 (0.14)	0.1492 (0.022)	0.1898 (0.012)
Gambling_Task_Perc_Larger	0.1244 (0.25)	0.1786 (0.006)	0.2786 (p < 0.00017)

Gambling_Task_Perc_Smaller	0.1389 (0.186)	0.1767 (0.002)	0.2728 (p < 0.00017)
Gambling_Task_Punish_Median_RT_Larger	0.06068 (0.092)	0.2145 (0.004)	0.2023 (p < 0.00017)
Gambling_Task_Punish_Median_RT_Smaller	0.01938 (0.228)	0.09255 (0.036)	0.08832 (0.078)
Gambling_Task_Punish_Perc_Larger	0.1107 (0.322)	0.09962 (0.098)	0.1206 (0.054)
Gambling_Task_Punish_Perc_Smaller	0.1015 (0.352)	0.0971 (0.092)	0.1059 (0.064)
Gambling_Task_Reward_Median_RT_Larger	0.07691 (0.038)	0.3189 (p < 0.00017)	0.2841 (p < 0.00017)
Gambling_Task_Reward_Median_RT_Smaller	0.03912 (0.148)	0.2727 (0.002)	0.2808 (0.002)
Gambling_Task_Reward_Perc_Larger	0.09085 (0.202)	0.07399 (0.312)	0.05932 (0.308)
Gambling_Task_Reward_Perc_Smaller	0.08792 (0.274)	0.07023 (0.328)	0.09101 (0.206)
Handedness	0.05724 (0.248)	0.02753 (0.906)	0.05036 (0.9)
Height	0.1302 (0.306)	0.2807 (0.036)	0.2903 (0.018)
InstruSupp_Unadj	0.09397 (0.05)	0.04897 (0.46)	0.06804 (0.364)
IWRD_RTC	0.06417 (0.184)	0.03712 (0.174)	0.04264 (0.168)
IWRD_TOT	0.0331 (0.328)	0.07425 (0.228)	0.09572 (0.18)
Language_Task_Acc	0.05444 (0.45)	0.1239 (0.74)	0.146 (0.748)
Language_Task_Math_Acc	0.08127 (0.332)	0.1194 (0.538)	0.1011 (0.64)
Language_Task_Math_Avg_Difficulty_Level	0.1679 (0.086)	0.1085 (0.596)	0.05623 (0.748)
Language_Task_Math_Median_RT	0.05762 (0.374)	0.0338 (0.304)	0.01405 (0.306)
Language_Task_Median_RT	0.1846 (0.042)	0.06455 (0.1)	0.01827 (0.254)
Language_Task_Story_Acc	0.1409 (0.188)	0.1144 (0.474)	0.1203 (0.55)
Language_Task_Story_Avg_Difficulty_Level	0.05792 (0.416)	0.1979 (0.564)	0.174 (0.752)
Language_Task_Story_Median_RT	0.3204 (0.002)	0.1369 (0.086)	0.03832 (0.394)
LifeSatisf_Unadj	0.07679 (0.672)	0.08385 (0.176)	0.05857 (0.234)
ListSort_AgeAdj	0.1404 (0.032)	0.1335 (0.022)	0.09257 (0.06)
ListSort_Unadj	0.1501 (0.072)	0.0806 (0.046)	0.08485 (0.068)
Loneliness_Unadj	0.02994 (0.998)	0.07653 (0.112)	0.05863 (0.03)

Mars_Errs	0.1945 (0.092)	0.07064 (0.874)	0.03348 (0.952)
Mars_Final	0.04827 (0.68)	0.08188 (0.414)	0.0607 (0.48)
Mars_Log_Score	0.1575 (0.566)	0.05754 (0.184)	0.02802 (0.136)
MeanPurp_Unadj	0.01437 (0.764)	0.1192 (0.078)	0.1213 (0.084)
MMSE_Score	0.02811 (0.356)	0.0622 (0.102)	0.03898 (0.224)
Noise_Comp	0.08937 (0.064)	0.04976 (0.402)	0.05891 (0.246)
Num_Days_Drank_7days	0.05627 (0.354)	0.07037 (0.498)	0.05731 (0.642)
Num_Days_Used_Any_Tobacco_7days	0.1502 (0.006)	0.1823 (0.312)	0.2419 (0.298)
Odor_AgeAdj	0.02739 (0.738)	0.07614 (0.176)	0.09064 (0.086)
Odor_Unadj	0.03047 (0.79)	0.06953 (0.138)	0.1152 (0.048)
PainIntens_RawScore	0.058 (0.414)	0.2726 (0.002)	0.2748 (0.006)
PainInterf_Tscore	0.06668 (0.476)	0.2779 (p < 0.00017)	0.3193 (p < 0.00017)
PercHostil_Unadj	0.05891 (0.26)	0.0189 (0.11)	0.01465 (0.104)
PercReject_Unadj	0.09067 (0.64)	0.07015 (0.416)	0.03722 (0.418)
PercStress_Unadj	0.03222 (0.856)	0.07072 (0.046)	0.1041 (0.024)
PicSeq_AgeAdj	0.1262 (0.04)	0.03657 (0.536)	0.04166 (0.514)
PicSeq_Unadj	0.1654 (0.026)	0.03733 (0.588)	0.04376 (0.618)
PicVocab_AgeAdj	0.08276 (0.678)	0.07366 (0.598)	0.07936 (0.548)
PicVocab_Unadj	0.131 (0.386)	0.08756 (0.522)	0.02893 (0.792)
PMAT24_A_CR	0.05279 (0.53)	0.06578 (0.264)	0.03734 (0.342)
PMAT24_A_RTCT	0.07813 (0.222)	0.08638 (0.228)	0.129 (0.184)
PMAT24_A_SI	0.0271 (0.648)	0.03489 (0.566)	0.03458 (0.488)
PosAffect_Unadj	0.05437 (0.396)	0.07381 (0.1)	0.05893 (0.1)
ProcSpeed_AgeAdj	0.07228 (0.268)	0.009636 (0.524)	0.01123 (0.508)
ProcSpeed_Unadj	0.08056 (0.322)	0.003412 (0.62)	0.02423 (0.536)
PSQI_AmtSleep	0.1793 (0.29)	0.0682 (0.354)	0.08867 (0.356)

PSQI_BadDream	0.07031 (0.852)	0.009052 (0.782)	0.01011 (0.522)
PSQI_Bathroom	0.1434 (0.178)	0.1735 (0.114)	0.2033 (0.086)
PSQI_BedPtnrRmate	0.05184 (0.888)	0.1653 (0.132)	0.1386 (0.15)
PSQI_BedTime	0.1325 (0.154)	0.1124 (0.188)	0.07566 (0.324)
PSQI_Breathe	0.01452 (0.414)	0.01304 (0.642)	0.01976 (0.756)
PSQI_Comp1	0.06698 (0.15)	0.06332 (0.072)	0.05854 (0.104)
PSQI_Comp2	0.04697 (0.36)	0.07596 (0.176)	0.1111 (0.126)
PSQI_Comp3	0.1826 (0.14)	0.05944 (0.158)	0.07929 (0.214)
PSQI_Comp4	0.3018 (0.046)	0.08756 (0.268)	0.03641 (0.576)
PSQI_Comp5	0.19 (0.304)	0.02653 (0.308)	0.03289 (0.332)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.142 (0.25)	0.1646 (0.17)	0.201 (0.17)
PSQI_DayEnthusiasm	0.1324 (0.448)	0.1338 (0.548)	0.1221 (0.6)
PSQI_DayStayAwake	0.02804 (0.168)	0.147 (0.32)	0.1878 (0.274)
PSQI_GetUpTime	0.0938 (0.21)	0.08922 (0.684)	0.08155 (0.758)
PSQI_Latency30Min	0.02628 (0.274)	0.07484 (0.14)	0.118 (0.156)
PSQI_Min2Asleep	0.2386 (0.028)	0.1699 (0.168)	0.1554 (0.314)
PSQI_Other	0.07292 (0.504)	0.01573 (0.584)	0.01983 (0.586)
PSQI_Pain	0.04341 (0.2)	0.1417 (0.038)	0.154 (0.046)
PSQI_Quality	0.08551 (0.11)	0.03112 (0.138)	0.05219 (0.164)
PSQI_Score	0.1703 (0.282)	0.05366 (0.13)	0.02684 (0.292)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0.02737 (0.386)	0.199 (0.118)	0.2331 (0.036)
PSQI_TooCold	0.06989 (0.29)	0.03727 (0.978)	0.04402 (0.968)
PSQI_TooHot	0.09271 (0.524)	0.0646 (0.626)	0.07311 (0.612)
PSQI_WakeUp	0.07012 (0.706)	0.06148 (0.058)	0.07295 (0.034)
Race	0.03912 (0.904)	0.196 (0.31)	0.1616 (0.05)

ReadEng_AgeAdj	0.05878 (0.75)	0.03345 (0.328)	0.05995 (0.192)
ReadEng_Unadj	0.1072 (0.502)	0.04957 (0.21)	0.05633 (0.16)
Relational_Task_Acc	0.007594 (0.684)	0.03398 (0.216)	0.08376 (0.064)
Relational_Task_Match_Acc	0.04584 (0.682)	0.07929 (0.192)	0.07233 (0.166)
Relational_Task_Match_Median_RT	0.03839 (0.48)	0.3228 (0.004)	0.3511 (p < 0.00017)
Relational_Task_Median_RT	0.1439 (0.144)	0.297 (0.016)	0.2536 (0.038)
Relational_Task_Rel_Acc	0.009911 (0.494)	0.07608 (0.232)	0.0871 (0.27)
Relational_Task_Rel_Median_RT	0.1772 (0.38)	0.2128 (0.116)	0.1894 (0.098)
Sadness_Unadj	0.03962 (0.978)	0.0562 (0.178)	0.07436 (0.066)
SCPT_FN	0.2641 (0.004)	0.06946 (0.886)	0.03982 (0.926)
SCPT_FP	0.0502 (0.258)	0.1502 (0.014)	0.1627 (0.01)
SCPT_LRRR	0.01359 (0.546)	0.1553 (0.104)	0.2156 (0.004)
SCPT_SEN	0.2208 (0.006)	0.05951 (0.916)	0.03334 (0.944)
SCPT_SPEC	0.0443 (0.258)	0.1466 (0.01)	0.1675 (0.002)
SCPT_TN	0.04559 (0.3)	0.1483 (0.008)	0.1659 (0.008)
SCPT_TPRT	0.03343 (0.548)	0.01164 (0.366)	0.01122 (0.354)
SCPT_TP	0.2655 (p < 0.00017)	0.04226 (0.928)	0.03907 (0.924)
SelfEff_Unadj	0.1063 (0.306)	0.1148 (0.098)	0.06599 (0.23)
Social_Task_Perc_Random	0.1127 (0.05)	0.07017 (0.932)	0.0492 (0.956)
Social_Task_Perc_TOM	0.0515 (0.254)	0.00732 (0.846)	0.006399 (0.908)
Social_Task_Perc_Unsure	0.1831 (0.028)	0.109 (0.908)	0.1151 (0.898)
Social_Task_Random_Perc_Random	0.13 (0.006)	0.05536 (0.95)	0.05358 (0.966)
Social_Task_Random_Perc_TOM	0.01397 (0.204)	0.1367 (0.536)	0.1493 (0.47)
Social_Task_Random_Perc_Unsure	0.1909 (0.008)	0.1504 (0.842)	0.09348 (0.918)
Social_Task_TOM_Median_RT_TOM	0.04935 (0.632)	0.01778 (0.84)	0.01049 (0.886)
Social_Task_TOM_Perc_Random	0.006794 (0.002)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.01614 (0.416)	0.003806 (0.976)	0.006245 (0.966)
Social_Task_TOM_Perc_Unsure	0.07164 (0.424)	0.0133 (0.874)	0.02186 (0.916)



SSAGA_Alc_D4_Dp_Sx	0.1116 (0.286)	0.1485 (0.428)	0.0953 (0.61)
SSAGA_BMICatHeaviest	0.03176 (0.75)	0.1578 (0.004)	0.1817 (p < 0.00017)
SSAGA_BMICat	0.01115 (0.952)	0.1935 (p < 0.00017)	0.2077 (p < 0.00017)
SSAGA_ChildhoodConduct	0.04543 (0.376)	0.08145 (0.626)	0.1016 (0.624)
SSAGA_Depressive_Sx	0.1001 (0.234)	0.04461 (0.486)	0.04525 (0.324)
SSAGA_Educ	0.1327 (0.042)	0.2439 (0.016)	0.1682 (0.108)
SSAGA_Income	0.00584 (0.998)	0.03135 (0.132)	0.06475 (0.01)
SSAGA_Mj_Times_Used	0.0633 (0.182)	0.08826 (0.174)	0.07848 (0.274)
SSAGA_TB_Smoking_History	0.09756 (0.522)	0.2827 (0.018)	0.249 (0.048)
SSAGA_Times_Used_Hallucinogens	0.184 (0.282)	0.09787 (0.088)	0.1481 (0.104)
SSAGA_Times_Used_Illicits	0.1305 (0.132)	0.01569 (0.77)	0.01431 (0.87)
Strength_AgeAdj	0.09725 (0.358)	0.3435 (p < 0.00017)	0.4203 (p < 0.00017)
Strength_Unadj	0.07955 (0.364)	0.3141 (p < 0.00017)	0.3609 (p < 0.00017)
Taste_AgeAdj	0.04823 (0.29)	0.07301 (0.04)	0.09286 (0.044)
Taste_Unadj	0.03247 (0.324)	0.07457 (0.046)	0.1105 (0.04)
Times_Used_Any_Tobacco_Today	0.02362 (0.434)	0.05893 (0.5)	0.04812 (0.52)
Total_Any_Tobacco_7days	0.08963 (0.106)	0.1443 (0.176)	0.1256 (0.33)
Total_CheW_7days	0 (1)	0.06228 (0.4)	0.06624 (0.384)
Total_Cigarettes_7days	0.09524 (0.136)	0.1121 (0.426)	0.1162 (0.478)
Total_Drinks_7days	0.08779 (0.216)	0.08112 (0.644)	0.09305 (0.692)
VSPLOT_CRTE	0.1956 (0.002)	0.04855 (0.234)	0.0475 (0.336)
VSPLOT_OFF	0.04306 (0.946)	0.04269 (0.576)	0.04042 (0.562)
VSPLOT_TC	0.02832 (0.77)	0.04168 (0.188)	0.06499 (0.162)
Weight	0.03522 (0.968)	0.4414 (p < 0.00017)	0.4325 (p < 0.00017)
WM_Task_Obk_Acc	0.07704 (0.29)	0.0994 (0.074)	0.1044 (0.138)
WM_Task_Obk_Body_Acc	0.1541 (0.076)	0.07006 (0.048)	0.06709 (0.056)

WM_Task_Obk_Body_Acc_Nontarget	0.08348 (0.18)	0.04482 (0.172)	0.03878 (0.23)
WM_Task_Obk_Body_Acc_Target	0.1519 (0.238)	0.1549 (0.008)	0.1528 (0.01)
WM_Task_Obk_Body_Median_RT	0.224 (0.014)	0.2013 (0.026)	0.1507 (0.11)
WM_Task_Obk_Body_Median_RT_Nontarget	0.1383 (0.026)	0.242 (0.012)	0.1865 (0.05)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.05868 (0.486)	0.3263 (p < 0.00017)	0.2971 (p < 0.00017)
WM_Task_Obk_Face_ACC_Nontarget	0.04995 (0.486)	0.2891 (p < 0.00017)	0.2817 (0.006)
WM_Task_Obk_Face_Acc_Target	0.08996 (0.266)	0.209 (0.05)	0.1909 (0.076)
WM_Task_Obk_Face_Median_RT	0.1093 (0.394)	0.2121 (0.02)	0.2143 (0.02)
WM_Task_Obk_Face_Median_RT_Nontarget	0.062 (0.684)	0.1907 (0.13)	0.1874 (0.108)
WM_Task_Obk_Face_Median_RT_Target	0.1142 (0.234)	0.3259 (p < 0.00017)	0.3087 (0.002)
WM_Task_Obk_Median_RT	0.073 (0.626)	0.105 (0.184)	0.0697 (0.266)
WM_Task_Obk_Place_Acc	0.04655 (0.182)	0.05109 (0.242)	0.07575 (0.154)
WM_Task_Obk_Place_Acc_Nontarget	0.09026 (0.08)	0.07863 (0.45)	0.08326 (0.386)
WM_Task_Obk_Place_Acc_Target	0.05243 (0.328)	0.03583 (0.168)	0.06531 (0.12)
WM_Task_Obk_Place_Median_RT	0.02143 (0.574)	0.02075 (0.648)	0.01784 (0.686)
WM_Task_Obk_Place_Median_RT_Nontarget	0.0189 (0.684)	0.01844 (0.632)	0.02881 (0.516)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.04174 (0.706)	0.06715 (0.2)	0.06425 (0.112)
WM_Task_Obk_Tool_Acc_Nontarget	0.02299 (0.706)	0.06457 (0.556)	0.1038 (0.224)
WM_Task_Obk_Tool_Acc_Target	0.0697 (0.508)	0.08987 (0.02)	0.06713 (0.04)
WM_Task_Obk_Tool_Median_RT	0.01858 (0.972)	0.05774 (0.358)	0.0808 (0.204)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.03539 (0.94)	0.07807 (0.356)	0.06451 (0.33)
WM_Task_Obk_Tool_Median_RT_Target	0.07049 (0.33)	0.1451 (0.132)	0.1265 (0.214)
WM_Task_2bk_Acc	0.05298 (0.216)	0.1374 (0.038)	0.1601 (0.038)
WM_Task_2bk_Body_Acc	0.02205 (0.112)	0.09863 (0.272)	0.08815 (0.43)
WM_Task_2bk_Body_Acc_Nontarget	0.00737 (0.522)	0.01361 (0.784)	0.02011 (0.772)

WM_Task_2bk_Body_Acc_Target	0.07544 (0.044)	0.2654 (0.004)	0.2206 (0.032)
WM_Task_2bk_Body_Median_RT	0.05731 (0.55)	0.08415 (0.236)	0.07598 (0.216)
WM_Task_2bk_Body_Median_RT_Nontarget	0.04233 (0.526)	0.1171 (0.2)	0.1354 (0.118)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.0851 (0.592)	0.0963 (0.092)	0.1107 (0.082)
WM_Task_2bk_Face_Acc_Nontarget	0.03516 (0.416)	0.08984 (0.166)	0.07506 (0.224)
WM_Task_2bk_Face_Acc_Target	0.1791 (0.02)	0.1568 (0.01)	0.09841 (0.024)
WM_Task_2bk_Face_Median_RT	0.1584 (0.104)	0.1141 (0.076)	0.1575 (0.052)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1878 (0.046)	0.08804 (0.104)	0.07952 (0.184)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1485 (0.22)	0.1718 (0.022)	0.15 (0.042)
WM_Task_2bk_Place_Acc	0.03453 (0.176)	0.06656 (0.256)	0.07247 (0.306)
WM_Task_2bk_Place_Acc_Nontarget	0.01774 (0.888)	0.07819 (0.656)	0.1058 (0.526)
WM_Task_2bk_Place_Acc_Target	0.02541 (0.326)	0.02817 (0.08)	0.04028 (0.042)
WM_Task_2bk_Place_Median_RT	0.08587 (0.216)	0.1238 (0.036)	0.1084 (0.034)
WM_Task_2bk_Place_Median_RT_Nontarget	0.08452 (0.192)	0.1535 (0.006)	0.1433 (0.006)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1297 (0.22)	0.1344 (0.072)	0.1114 (0.188)
WM_Task_2bk_Tool_Acc_Nontarget	0.1012 (0.404)	0.158 (0.07)	0.1864 (0.042)
WM_Task_2bk_Tool_Acc_Target	0.01639 (0.306)	0.00952 (0.84)	0.02298 (0.822)
WM_Task_2bk_Tool_Median_RT	0.09158 (0.412)	0.08117 (0.234)	0.07495 (0.254)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.08769 (0.382)	0.07462 (0.212)	0.06022 (0.23)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.06936 (0.29)	0.2126 (p < 0.00017)	0.1693 (p < 0.00017)
WM_Task_Median_RT	0.1134 (0.374)	0.1267 (0.098)	0.09892 (0.152)
ZygotySR	0.02648 (0.814)	0.128 (0.268)	0.1678 (0.216)

1200 volumes   50 subjects			
	rfMRI_REST1	rfMRI_REST2	tfMRI_EMOTION
Age_in_Yrs	0.01212 (0.992)	0.05044 (0.998)	0.03288 (0.394)
AngAffect_Unadj	0.03816 (0.648)	0.01719 (0.748)	0.02757 (0.552)
AngAggr_Unadj	0.02858 (0.762)	0.008141 (0.508)	0.01683 (0.582)
AngHostil_Unadj	0.007291 (0.38)	0.04969 (0.82)	0.06503 (0.658)
ASR_Aggr_Raw	0.06279 (0.916)	0.04715 (0.986)	0.1373 (0.576)
ASR_Aggr_T	0.06328 (0.954)	0.05357 (0.988)	0.1181 (0.696)
ASR_Anxd_Pct	0.05909 (0.826)	0.05609 (0.74)	0.1623 (0.42)
ASR_Anxd_Raw	0.02404 (0.974)	0.06354 (0.954)	0.1181 (0.804)
ASR_Attn_Raw	0.07201 (0.93)	0.06367 (0.992)	0.09388 (0.388)
ASR_Attn_T	0.1032 (0.894)	0.1178 (0.894)	0.06522 (0.646)
ASR_Crit_Raw	0.05125 (0.808)	0.02772 (0.95)	0.1429 (0.444)
ASR_Extn_Raw	0.04938 (0.49)	0.03821 (0.842)	0.1221 (0.398)
ASR_Extn_T	0.02632 (0.566)	0.04441 (0.844)	0.1347 (0.332)
ASR_Intn_Raw	0.05156 (0.79)	0.05981 (0.908)	0.1887 (0.664)
ASR_Intn_T	0.05176 (0.738)	0.06435 (0.862)	0.2011 (0.518)
ASR_Intr_Raw	0.09679 (0.09)	0.03982 (0.256)	0.2696 (0.098)
ASR_Intr_T	0.1043 (0.064)	0.05106 (0.432)	0.2724 (0.056)
ASR_Oth_Raw	0.07508 (0.638)	0.09733 (0.71)	0.0643 (0.322)
ASR_Rule_Raw	0.0415 (0.42)	0.02796 (0.472)	0.241 (p < 0.00017)
ASR_Rule_T	0.02061 (0.516)	0.01715 (0.556)	0.2472 (p < 0.00017)
ASR_Soma_Raw	0.124 (0.084)	0.06511 (0.29)	0.1722 (0.406)
ASR_Soma_T	0.1705 (0.008)	0.04909 (0.158)	0.1606 (0.444)
ASR_TAO_Sum	0.04778 (0.972)	0.06602 (0.982)	0.1639 (0.14)

ASR_Thot_Raw	0.02057 (0.896)	0.01411 (0.918)	0.08989 (0.852)
ASR_Thot_T	0.02415 (0.802)	0.01249 (0.952)	0.05424 (0.866)
ASR_Totp_Raw	0.06645 (0.896)	0.06558 (0.944)	0.1797 (0.334)
ASR_Totp_T	0.06185 (0.924)	0.07721 (0.942)	0.1507 (0.318)
ASR_Witd_Raw	0.02756 (0.768)	0.03204 (0.816)	0.1689 (0.222)
ASR_Witd_T	0.0253 (0.66)	0.0337 (0.862)	0.1724 (0.204)
Avg_Weekday_Any_Tobacco_7days	0.07678 (0.272)	0.07379 (0.16)	0.0876 (0.372)
Avg_Weekday_CheW_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.1232 (0.196)	0.08504 (0.16)	0.1181 (0.408)
Avg_Weekday_Drinks_7days	0.07063 (0.386)	0.02726 (0.754)	0.3083 (0.002)
Avg_Weekend_Any_Tobacco_7days	0.0761 (0.244)	0.07179 (0.22)	0.1017 (0.288)
Avg_Weekend_CheW_7days	0 (1)	0 (1)	0.002831 (0.094)
Avg_Weekend_Cigarettes_7days	0.08563 (0.418)	0.06404 (0.336)	0.1576 (0.19)
Avg_Weekend_Drinks_7days	0.07044 (0.176)	0.1 (0.298)	0.1652 (0.164)
BMI	0.0252 (0.978)	0.08905 (0.516)	0.07909 (0.09)
BPDiastolic	0.02333 (0.176)	0.06063 (0.394)	0.02151 (0.746)
BPSystolic	0.0405 (0.732)	0.05417 (0.52)	0.0529 (0.902)
CardSort_AgeAdj	0.09265 (0.96)	0.02592 (0.898)	0.1067 (0.508)
CardSort_Unadj	0.1055 (0.966)	0.04864 (0.934)	0.1025 (0.464)
CogCrystalComp_AgeAdj	0.08341 (0.71)	0.07647 (0.66)	0.03718 (0.692)
CogCrystalComp_Unadj	0.08235 (0.594)	0.09774 (0.444)	0.02946 (0.696)
CogEarlyComp_AgeAdj	0.101 (0.366)	0.02535 (0.712)	0.05428 (0.496)
CogEarlyComp_Unadj	0.109 (0.428)	0.03458 (0.776)	0.0979 (0.274)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)

DDisc_AUC_200	0.05209 (0.314)	0.07691 (0.72)	0.1948 (0.01)
DDisc_AUC_40K	0.05682 (0.608)	0.1329 (0.566)	0.2612 (p < 0.00017)
DDisc_SV_10yr_200	0.06425 (0.572)	0.03858 (0.862)	0.06534 (0.174)
DDisc_SV_10yr_40K	0.02325 (0.666)	0.07467 (0.376)	0.11 (0.15)
DDisc_SV_1mo_200	0.09195 (0.128)	0.03641 (0.76)	0.078 (0.124)
DDisc_SV_1mo_40K	0.08533 (0.024)	0.07797 (0.088)	0.09651 (0.094)
DDisc_SV_1yr_200	0.07115 (0.304)	0.1297 (0.442)	0.2141 (p < 0.00017)
DDisc_SV_1yr_40K	0.04285 (0.776)	0.142 (0.256)	0.1192 (0.036)
DDisc_SV_3yr_200	0.108 (0.046)	0.04283 (0.666)	0.2286 (0.01)
DDisc_SV_3yr_40K	0.0343 (0.89)	0.05636 (0.86)	0.2783 (0.002)
DDisc_SV_5yr_200	0.02103 (0.524)	0.04039 (0.774)	0.1609 (0.064)
DDisc_SV_5yr_40K	0.03863 (0.294)	0.1155 (0.506)	0.1769 (0.07)
DDisc_SV_6mo_200	0.135 (0.076)	0.07679 (0.482)	0.1368 (0.33)
DDisc_SV_6mo_40K	0.08143 (0.592)	0.1191 (0.164)	0.08978 (0.194)
Dexterity_AgeAdj	0.08747 (0.658)	0.0776 (0.11)	0.1124 (0.584)
Dexterity_Unadj	0.07047 (0.772)	0.0627 (0.18)	0.09302 (0.574)
DSM_Adh_Raw	0.05124 (0.912)	0.057 (0.99)	0.0795 (0.308)
DSM_Adh_T	0.03617 (0.876)	0.06373 (0.98)	0.0585 (0.61)
DSM_Antis_Raw	0.02404 (0.364)	0.03295 (0.656)	0.1321 (0.154)
DSM_Antis_T	0.02305 (0.598)	0.03473 (0.906)	0.1797 (0.216)
DSM_Anxi_Raw	0.01537 (0.876)	0.04857 (0.904)	0.07918 (0.932)
DSM_Anxi_T	0.04968 (0.77)	0.05269 (0.892)	0.1079 (0.93)
DSM_Avoid_Raw	0.03124 (0.986)	0.02076 (0.87)	0.05914 (0.848)
DSM_Avoid_T	0.03344 (0.986)	0.02251 (0.784)	0.1068 (0.806)
DSM_Depr_Raw	0.1158 (0.336)	0.1138 (0.7)	0.1219 (0.892)
DSM_Depr_T	0.1136 (0.268)	0.09017 (0.81)	0.1338 (0.93)

DSM_Hype_Raw	0.1168 (0.386)	0.02733 (0.976)	0.1336 (0.102)
DSM_Inat_Raw	0.02498 (0.97)	0.05984 (0.992)	0.02725 (0.716)
DSM_Somp_Raw	0.1239 (0.026)	0.05609 (0.088)	0.2239 (0.07)
DSM_Somp_T	0.1527 (0.024)	0.08503 (0.064)	0.2607 (0.024)
Emotion_Task_Acc	0.04755 (0.448)	0.01038 (0.608)	0.01846 (0.512)
Emotion_Task_Face_Acc	0.008125 (0.6)	0.01002 (0.896)	0.01934 (0.46)
Emotion_Task_Face_Median_RT	0.1545 (0.942)	0.09682 (0.948)	0.03734 (0.776)
Emotion_Task_Median_RT	0.1227 (0.972)	0.09048 (0.938)	0.0509 (0.742)
Emotion_Task_Shape_Acc	0.1335 (0.462)	0.06157 (0.434)	0.04765 (0.44)
Emotion_Task_Shape_Median_RT	0.04713 (0.958)	0.05553 (0.88)	0.1306 (0.228)
EmotSupp_Unadj	0.2344 (0.086)	0.156 (0.144)	0.1173 (0.102)
Endurance_AgeAdj	0.1233 (0.108)	0.1023 (0.236)	0.04774 (0.246)
Endurance_Unadj	0.1325 (0.104)	0.07047 (0.308)	0.04453 (0.256)
ER40ANG	0.04874 (0.812)	0.0267 (0.608)	0.02551 (0.982)
ER40FEAR	0.1065 (0.732)	0.02589 (0.778)	0.1038 (0.296)
ER40NOE	0.1579 (0.178)	0.4222 (0.014)	0.04859 (0.558)
ER40SAD	0.01818 (0.576)	0.04803 (0.268)	0.05398 (0.254)
ER40_CRT	0.05099 (0.338)	0.04763 (0.916)	0.04534 (0.462)
ER40_CR	0.1464 (0.602)	0.1049 (0.796)	0.04264 (0.828)
EVA_Denom	0.04712 (0.9)	0.12 (0.652)	0.2072 (0.044)
FearAffect_Unadj	0.05138 (0.912)	0.01996 (0.976)	0.0934 (0.668)
FearSomat_Unadj	0.1554 (0.362)	0.1174 (0.362)	0.01858 (0.656)
Flanker_AgeAdj	0.2711 (0.006)	0.04638 (0.236)	0.09365 (0.046)
Flanker_Unadj	0.1984 (0.036)	0.04638 (0.182)	0.06596 (0.054)
Friendship_Unadj	0.078 (0.272)	0.08889 (0.112)	0.0756 (0.624)

GaitSpeed_Comp	0.05613 (0.19)	0.002627 (0.658)	0.1036 (0.288)
Gambling_Task_Median_RT_Larger	0.06282 (0.09)	0.06209 (0.056)	0.02037 (0.368)
Gambling_Task_Median_RT_Smaller	0.1036 (0.044)	0.01953 (0.334)	0.01314 (0.506)
Gambling_Task_Perc_Larger	0.08558 (0.302)	0.1265 (0.282)	0.07372 (0.192)
Gambling_Task_Perc_Smaller	0.09827 (0.256)	0.135 (0.306)	0.06048 (0.214)
Gambling_Task_Punish_Median_RT_Larger	0.0888 (0.104)	0.03917 (0.1)	0.01733 (0.322)
Gambling_Task_Punish_Median_RT_Smaller	0.09637 (0.038)	0.01484 (0.446)	0.01184 (0.624)
Gambling_Task_Punish_Perc_Larger	0.06923 (0.498)	0.08614 (0.444)	0.03076 (0.502)
Gambling_Task_Punish_Perc_Smaller	0.07323 (0.464)	0.09685 (0.414)	0.03062 (0.488)
Gambling_Task_Reward_Median_RT_Larger	0.06929 (0.068)	0.05576 (0.074)	0.03763 (0.322)
Gambling_Task_Reward_Median_RT_Smaller	0.08685 (0.13)	0.02638 (0.294)	0.02897 (0.506)
Gambling_Task_Reward_Perc_Larger	0.0378 (0.528)	0.1034 (0.118)	0.03161 (0.494)
Gambling_Task_Reward_Perc_Smaller	0.02102 (0.654)	0.127 (0.072)	0.03295 (0.45)
Handedness	0.009357 (0.334)	0.07002 (0.19)	0.06628 (0.68)
Height	0.06997 (0.782)	0.09261 (0.138)	0.1163 (0.222)
InstruSupp_Unadj	0.08464 (0.326)	0.0904 (0.042)	0.05644 (0.482)
IWRD_RTC	0.0404 (0.166)	0.07841 (0.3)	0.09331 (0.134)
IWRD_TOT	0.01811 (0.44)	0.1263 (0.012)	0.09563 (0.288)
Language_Task_Acc	0.1086 (0.724)	0.02054 (0.534)	0.05794 (0.56)
Language_Task_Math_Acc	0.1433 (0.73)	0.03712 (0.566)	0.06981 (0.484)
Language_Task_Math_Avg_Difficulty_Level	0.1278 (0.21)	0.2046 (0.056)	0.09074 (0.208)
Language_Task_Math_Median_RT	0.04798 (0.178)	0.05333 (0.56)	0.0146 (0.598)
Language_Task_Median_RT	0.1894 (0.038)	0.1759 (0.088)	0.02758 (0.356)
Language_Task_Story_Acc	0.1855 (0.134)	0.04065 (0.55)	0.0792 (0.358)



Language_Task_Story_Avg_Difficulty_Level	0.08026 (0.584)	0.04728 (0.372)	0.03675 (0.822)
Language_Task_Story_Median_RT	0.2845 (0.014)	0.2834 (0.004)	0.04146 (0.358)
LifeSatisf_Unadj	0.02337 (0.874)	0.1108 (0.392)	0.09153 (0.892)
ListSort_AgeAdj	0.1549 (0.044)	0.1097 (0.17)	0.05054 (0.824)
ListSort_Unadj	0.1326 (0.076)	0.1149 (0.342)	0.05295 (0.84)
Loneliness_Unadj	0.03105 (1)	0.01294 (0.964)	0.1464 (0.37)
Mars_Errs	0.181 (0.092)	0.1458 (0.404)	0.02192 (0.666)
Mars_Final	0.02582 (0.754)	0.0697 (0.54)	0.02579 (0.242)
Mars_Log_Score	0.1399 (0.398)	0.04588 (0.736)	0.02838 (0.458)
MeanPurp_Unadj	0.01801 (0.652)	0.05814 (0.308)	0.08246 (0.182)
MMSE_Score	0.04838 (0.208)	0.02598 (0.422)	0.01727 (0.126)
Noise_Comp	0.1396 (0.052)	0.07439 (0.098)	0.02602 (0.45)
Num_Days_Drank_7days	0.02284 (0.316)	0.09821 (0.492)	0.1814 (0.098)
Num_Days_Used_Any_Tobacco_7days	0.2378 (0.02)	0.07 (0.062)	0.07881 (0.292)
Odor_AgeAdj	0.04563 (0.854)	0.01977 (0.382)	0.05691 (0.22)
Odor_Unadj	0.04356 (0.908)	0.02605 (0.41)	0.05902 (0.188)
PainIntens_RawScore	0.03222 (0.468)	0.08555 (0.49)	0.04984 (0.176)
PainInterf_Tscore	0.03393 (0.722)	0.06368 (0.064)	0.107 (0.026)
PercHostil_Unadj	0.08732 (0.108)	0.06351 (0.468)	0.1856 (0.008)
PercReject_Unadj	0.09917 (0.934)	0.05038 (0.502)	0.1103 (0.542)
PercStress_Unadj	0.01947 (0.96)	0.03623 (0.712)	0.04957 (0.478)
PicSeq_AgeAdj	0.1276 (0.026)	0.07799 (0.352)	0.1525 (0.212)
PicSeq_Unadj	0.09502 (0.054)	0.08156 (0.39)	0.1458 (0.322)
PicVocab_AgeAdj	0.08184 (0.682)	0.09181 (0.316)	0.06656 (0.628)
PicVocab_Unadj	0.1296 (0.394)	0.165 (0.072)	0.06113 (0.608)

PMAT24_A_CR	0.01921 (0.694)	0.04602 (0.478)	0.09502 (0.22)
PMAT24_A_RTCR	0.1102 (0.282)	0.1105 (0.104)	0.1918 (0.032)
PMAT24_A_SI	0.02156 (0.672)	0.04179 (0.494)	0.05516 (0.444)
PosAffect_Unadj	0.1013 (0.094)	0.05625 (0.676)	0.1009 (0.274)
ProcSpeed_AgeAdj	0.06731 (0.312)	0.02755 (0.586)	0.02025 (0.898)
ProcSpeed_Unadj	0.06646 (0.39)	0.03401 (0.56)	0.00961 (0.886)
PSQI_AmtSleep	0.1176 (0.53)	0.2647 (0.036)	0.09741 (0.664)
PSQI_BadDream	0.1164 (0.944)	0.0399 (0.416)	0.02342 (0.168)
PSQI_Bathroom	0.04427 (0.556)	0.2346 (0.014)	0.1659 (0.098)
PSQI_BedPtnrRmate	0.04033 (0.952)	0.03025 (0.724)	0.1125 (0.034)
PSQI_BedTime	0.2565 (0.006)	0.03015 (0.542)	0.09887 (0.572)
PSQI_Breathe	0.01625 (0.348)	0.02686 (0.474)	0.02196 (0.368)
PSQI_Comp1	0.07123 (0.354)	0.02608 (0.328)	0.04079 (0.098)
PSQI_Comp2	0.1128 (0.166)	0.02904 (0.288)	0.2147 (0.326)
PSQI_Comp3	0.1112 (0.368)	0.2144 (0.052)	0.08387 (0.626)
PSQI_Comp4	0.3937 (p < 0.00017)	0.1482 (0.402)	0.158 (0.354)
PSQI_Comp5	0.123 (0.194)	0.1637 (0.37)	0.08325 (0.196)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.1211 (0.164)	0.06627 (0.572)	0.06875 (0.166)
PSQI_DayEnthusiasm	0.09909 (0.494)	0.06083 (0.65)	0.07053 (0.2)
PSQI_DayStayAwake	0.06901 (0.126)	0.02378 (0.394)	0.04785 (0.592)
PSQI_GetUpTime	0.08733 (0.35)	0.1276 (0.158)	0.06003 (0.496)
PSQI_Latency30Min	0.06201 (0.156)	0.0274 (0.202)	0.193 (0.38)
PSQI_Min2Asleep	0.2605 (0.026)	0.2048 (0.024)	0.1675 (0.768)
PSQI_Other	0.05493 (0.26)	0.08909 (0.842)	0.04099 (0.576)

PSQI_Pain	0.04892 (0.054)	0.03708 (0.222)	0.1117 (0.058)
PSQI_Quality	0.06314 (0.396)	0.03113 (0.332)	0.04852 (0.122)
PSQI_Score	0.1894 (0.066)	0.08225 (0.388)	0.09299 (0.342)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0.03033 (0.514)	0.02034 (0.228)	0.05934 (0.702)
PSQI_TooCold	0.02135 (0.336)	0.2204 (0.088)	0.02191 (0.972)
PSQI_TooHot	0.04873 (0.322)	0.1274 (0.47)	0.04323 (0.468)
PSQI_WakeUp	0.07745 (0.898)	0.05179 (0.608)	0.2346 (0.042)
Race	0.02487 (0.964)	0.05574 (0.948)	0.1162 (0.352)
ReadEng_AgeAdj	0.04989 (0.656)	0.06618 (0.798)	0.05362 (0.506)
ReadEng_Unadj	0.08607 (0.494)	0.1103 (0.556)	0.05542 (0.504)
Relational_Task_Acc	0.01778 (0.554)	0.02331 (0.602)	0.1766 (0.066)
Relational_Task_Match_Acc	0.03349 (0.682)	0.07265 (0.514)	0.262 (0.004)
Relational_Task_Match_Median_RT	0.02814 (0.614)	0.02397 (0.59)	0.03327 (0.726)
Relational_Task_Median_RT	0.16 (0.198)	0.04077 (0.56)	0.03467 (0.756)
Relational_Task_Rel_Acc	0.008668 (0.296)	0.04568 (0.266)	0.1545 (0.134)
Relational_Task_Rel_Median_RT	0.2084 (0.262)	0.04261 (0.868)	0.02482 (0.834)
Sadness_Unadj	0.0109 (0.99)	0.03119 (0.898)	0.121 (0.366)
SCPT_FN	0.2367 (0.03)	0.197 (0.018)	0.1094 (0.46)
SCPT_FP	0.04444 (0.414)	0.07633 (0.166)	0.01186 (0.488)
SCPT_LRNR	0.0128 (0.456)	0.02796 (0.826)	0.09238 (0.116)
SCPT_SEN	0.2506 (0.018)	0.216 (0.014)	0.1205 (0.432)
SCPT_SPEC	0.03921 (0.418)	0.05674 (0.232)	0.02225 (0.422)
SCPT_TN	0.02887 (0.472)	0.07744 (0.168)	0.01693 (0.452)
SCPT_TPRT	0.03052 (0.604)	0.02747 (0.454)	0.03505 (0.782)

SCPT_TP	0.2558 (0.01)	0.2166 (0.006)	0.1369 (0.378)
SelfEff_Unadj	0.1002 (0.248)	0.07161 (0.486)	0.04213 (0.48)
Social_Task_Perc_Random	0.1253 (0.262)	0.05392 (0.096)	0.02271 (0.396)
Social_Task_Perc_TOM	0.07559 (0.242)	0.1319 (0.114)	0.1054 (0.32)
Social_Task_Perc_Unsure	0.1707 (0.086)	0.1712 (0.034)	0.07199 (0.934)
Social_Task_Random_Perc_Random	0.1416 (0.084)	0.1127 (0.042)	0.02042 (0.476)
Social_Task_Random_Perc_TOM	0.1896 (0.136)	0.04834 (0.19)	0.1283 (0.284)
Social_Task_Random_Perc_Unsure	0.1703 (0.078)	0.1283 (0.09)	0.0348 (0.9)
Social_Task_TOM_Median_RT_TOM	0.0207 (0.766)	0.05337 (0.636)	0.04719 (0.376)
Social_Task_TOM_Perc_Random	0.002831 (0.01)	0 (1)	0.06171 (0.002)
Social_Task_TOM_Perc_TOM	0.01722 (0.342)	0.02662 (0.454)	0.02521 (0.852)
Social_Task_TOM_Perc_Unsure	0.03564 (0.232)	0.1198 (0.49)	0.08871 (0.704)
SSAGA_Alc_D4_Dp_Sx	0.08307 (0.09)	0.1434 (0.604)	0.1552 (0.622)
SSAGA_BMICatHeaviest	0.008655 (0.976)	0.08376 (0.176)	0.1629 (0.002)
SSAGA_BMICat	0.006511 (1)	0.05921 (0.474)	0.06406 (0.108)
SSAGA_ChildhoodConduct	0.0509 (0.142)	0.04315 (0.872)	0.2392 (0.156)
SSAGA_Depressive_Sx	0.0992 (0.154)	0.1204 (0.184)	0.05867 (0.9)
SSAGA_Educ	0.1595 (0.15)	0.1276 (0.036)	0.03934 (0.44)
SSAGA_Income	0.0198 (0.992)	0.009314 (0.99)	0.1713 (0.056)
SSAGA_Mj_Times_Used	0.1261 (0.024)	0.03583 (0.562)	0.09721 (0.424)
SSAGA_TB_Smoking_History	0.1008 (0.396)	0.1469 (0.47)	0.0954 (0.652)
SSAGA_Times_Used_Hallucinogens	0.1482 (0.29)	0.06128 (0.566)	0.125 (0.032)
SSAGA_Times_Used_Illicits	0.1224 (0.374)	0.08252 (0.164)	0.07995 (0.524)
Strength_AgeAdj	0.03069 (0.866)	0.1636 (0.028)	0.1062 (0.29)
Strength_Unadj	0.04203 (0.746)	0.1513 (0.04)	0.0799 (0.312)

Taste_AgeAdj	0.02771 (0.518)	0.1033 (0.084)	0.04872 (0.384)
Taste_Unadj	0.03433 (0.532)	0.08761 (0.066)	0.04104 (0.446)
Times_Used_Any_Tobacco_Today	0.0674 (0.478)	0.02102 (0.37)	0.09637 (0.066)
Total_Any_Tobacco_7days	0.1002 (0.208)	0.05144 (0.188)	0.1155 (0.324)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.1243 (0.162)	0.09748 (0.126)	0.1476 (0.31)
Total_Drinks_7days	0.0577 (0.334)	0.05659 (0.324)	0.272 (0.016)
VSPLOT_CRTE	0.1679 (0.006)	0.1508 (0.048)	0.08002 (0.212)
VSPLOT_OFF	0.04559 (0.61)	0.06898 (0.974)	0.08384 (0.746)
VSPLOT_TC	0.0177 (0.24)	0.04488 (0.868)	0.1518 (0.26)
Weight	0.005009 (0.996)	0.06942 (0.566)	0.1069 (0.312)
WM_Task_Obk_Acc	0.07224 (0.232)	0.05395 (0.604)	0.04739 (0.178)
WM_Task_Obk_Body_Acc	0.08624 (0.328)	0.1366 (0.22)	0.05725 (0.116)
WM_Task_Obk_Body_Acc_Nontarget	0.08745 (0.222)	0.09611 (0.222)	0.06345 (0.308)
WM_Task_Obk_Body_Acc_Target	0.09448 (0.346)	0.1758 (0.258)	0.06548 (0.06)
WM_Task_Obk_Body_Median_RT	0.08876 (0.242)	0.2019 (0.002)	0.06795 (0.22)
WM_Task_Obk_Body_Median_RT_Nontarget	0.06582 (0.262)	0.1496 (0.004)	0.127 (0.19)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.1057 (0.192)	0.1142 (0.366)	0.1431 (0.088)
WM_Task_Obk_Face_ACC_Nontarget	0.08677 (0.192)	0.05686 (0.502)	0.09242 (0.116)
WM_Task_Obk_Face_Acc_Target	0.1262 (0.378)	0.1253 (0.16)	0.1736 (0.324)
WM_Task_Obk_Face_Median_RT	0.07543 (0.452)	0.08065 (0.574)	0.0772 (0.396)
WM_Task_Obk_Face_Median_RT_Nontarget	0.04752 (0.714)	0.03857 (0.684)	0.07712 (0.304)
WM_Task_Obk_Face_Median_RT_Target	0.09526 (0.28)	0.1036 (0.268)	0.1095 (0.15)
WM_Task_Obk_Median_RT	0.03611 (0.748)	0.0728 (0.348)	0.05196 (0.242)

WM_Task_Obk_Place_Acc	0.08221 (0.268)	0.0666 (0.112)	0.05863 (0.064)
WM_Task_Obk_Place_Acc_Nontarget	0.06053 (0.286)	0.0722 (0.15)	0.09682 (0.084)
WM_Task_Obk_Place_Acc_Target	0.1171 (0.146)	0.03279 (0.418)	0.05193 (0.202)
WM_Task_Obk_Place_Median_RT	0.01747 (0.666)	0.0408 (0.246)	0.03945 (0.348)
WM_Task_Obk_Place_Median_RT_Nontarget	0.01279 (0.718)	0.03105 (0.488)	0.02837 (0.346)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.05624 (0.886)	0.01496 (0.524)	0.1829 (0.026)
WM_Task_Obk_Tool_Acc_Nontarget	0.06207 (0.582)	0.0222 (0.594)	0.1212 (0.332)
WM_Task_Obk_Tool_Acc_Target	0.1679 (0.482)	0.03883 (0.71)	0.07538 (0.26)
WM_Task_Obk_Tool_Median_RT	0.0195 (0.93)	0.0607 (0.754)	0.08149 (0.1)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.01392 (0.94)	0.0727 (0.568)	0.09641 (0.162)
WM_Task_Obk_Tool_Median_RT_Target	0.04592 (0.576)	0.07218 (0.09)	0.2004 (0.022)
WM_Task_2bk_Acc	0.07422 (0.048)	0.02581 (0.582)	0.01605 (0.436)
WM_Task_2bk_Body_Acc	0.05298 (0.032)	0.01193 (0.336)	0.03527 (0.224)
WM_Task_2bk_Body_Acc_Nontarget	0.05655 (0.122)	0.003507 (0.848)	0.07969 (0.458)
WM_Task_2bk_Body_Acc_Target	0.0984 (0.004)	0.04719 (0.212)	0.04036 (0.272)
WM_Task_2bk_Body_Median_RT	0.01726 (0.726)	0.04514 (0.6)	0.01812 (0.484)
WM_Task_2bk_Body_Median_RT_Nontarget	0.02817 (0.662)	0.04294 (0.406)	0.04075 (0.404)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1636 (0.184)	0.04117 (0.64)	0.01732 (0.852)
WM_Task_2bk_Face_Acc_Nontarget	0.08577 (0.304)	0.009111 (0.814)	0.04681 (0.66)
WM_Task_2bk_Face_Acc_Target	0.104 (0.096)	0.09637 (0.178)	0.04691 (0.56)
WM_Task_2bk_Face_Median_RT	0.1159 (0.194)	0.1516 (0.048)	0.01592 (0.816)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1179 (0.082)	0.1586 (0.052)	0.01543 (0.838)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)

WM_Task_2bk_Median_RT	0.1256 (0.256)	0.1348 (0.166)	0.01753 (0.644)
WM_Task_2bk_Place_Acc	0.03012 (0.168)	0.02214 (0.508)	0.01712 (0.288)
WM_Task_2bk_Place_Acc_Nontarget	0.01513 (0.736)	0.06481 (0.846)	0.02359 (0.57)
WM_Task_2bk_Place_Acc_Target	0.03176 (0.388)	0.03443 (0.254)	0.0148 (0.102)
WM_Task_2bk_Place_Median_RT	0.09167 (0.15)	0.09885 (0.256)	0.01591 (0.332)
WM_Task_2bk_Place_Median_RT_Nontarget	0.07115 (0.162)	0.05309 (0.366)	0.02833 (0.296)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1051 (0.224)	0.05657 (0.508)	0.001101 (0.68)
WM_Task_2bk_Tool_Acc_Nontarget	0.08314 (0.42)	0.04188 (0.48)	0.01378 (0.74)
WM_Task_2bk_Tool_Acc_Target	0.06099 (0.342)	0.04207 (0.238)	0.002521 (0.456)
WM_Task_2bk_Tool_Median_RT	0.06691 (0.318)	0.09299 (0.34)	0.03108 (0.65)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.06819 (0.374)	0.1078 (0.188)	0.03902 (0.52)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.04763 (0.27)	0.03915 (0.59)	0.02156 (0.536)
WM_Task_Median_RT	0.08975 (0.472)	0.1412 (0.144)	0.03498 (0.476)
ZygotitySR	0.01911 (0.88)	0.04518 (0.47)	0.06622 (0.202)

1200 volumes   50 subjects			
	tfMRI_GAMBLI NG	tfMRI_LANGUA GE	tfMRI_MOTO R
Age_in_Yrs	0.08308 (0.494)	0.1144 (0.164)	0.02839 (0.908)
AngAffect_Unadj	0.02442 (0.786)	0.06516 (0.372)	0.06548 (0.156)
AngAggr_Unadj	0.02727 (0.45)	0.02874 (0.484)	0.06094 (0.166)
AngHostil_Unadj	0.07418 (0.054)	0.003424 (0.376)	0.04681 (0.622)
ASR_Aggr_Raw	0.09262 (0.23)	0.07821 (0.164)	0.1141 (0.508)
ASR_Aggr_T	0.1106 (0.182)	0.08115 (0.124)	0.1003 (0.572)
ASR_Anxd_Pct	0.04568 (0.52)	0.07541 (0.14)	0.09325 (0.266)

ASR_Anxd_Raw	0.03274 (0.362)	0.147 (0.028)	0.1076 (0.23)
ASR_Attn_Raw	0.06286 (0.474)	0.06313 (0.142)	0.06636 (0.348)
ASR_Attn_T	0.07315 (0.518)	0.07072 (0.346)	0.07466 (0.294)
ASR_Crit_Raw	0.1076 (0.796)	0.08027 (0.59)	0.08159 (0.676)
ASR_Extn_Raw	0.09493 (0.256)	0.07859 (0.09)	0.07169 (0.69)
ASR_Extn_T	0.1327 (0.174)	0.0825 (0.096)	0.05226 (0.83)
ASR_Intn_Raw	0.006464 (0.254)	0.08866 (0.004)	0.1041 (0.276)
ASR_Intn_T	0.01377 (0.15)	0.07815 (0.012)	0.07792 (0.354)
ASR_Intr_Raw	0.1044 (0.204)	0.191 (0.016)	0.05542 (0.43)
ASR_Intr_T	0.1115 (0.1)	0.1595 (0.02)	0.07989 (0.472)
ASR_Oth_Raw	0.04772 (0.548)	0.07839 (0.166)	0.1734 (0.072)
ASR_Rule_Raw	0.1798 (0.086)	0.07873 (0.208)	0.2157 (0.084)
ASR_Rule_T	0.1246 (0.278)	0.1054 (0.174)	0.1861 (0.178)
ASR_Soma_Raw	0.003134 (0.468)	0.07878 (0.024)	0.09931 (0.042)
ASR_Soma_T	0.003733 (0.488)	0.04013 (0.088)	0.09266 (0.054)
ASR_TAO_Sum	0.03599 (0.696)	0.04655 (0.26)	0.1733 (0.048)
ASR_Thot_Raw	0.02535 (0.85)	0.07961 (0.32)	0.06725 (0.412)
ASR_Thot_T	0.02789 (0.794)	0.1118 (0.088)	0.09653 (0.398)
ASR_Totp_Raw	0.01423 (0.49)	0.1075 (0.018)	0.1729 (0.062)
ASR_Totp_T	0.04294 (0.308)	0.07372 (0.038)	0.1586 (0.096)
ASR_Witd_Raw	0.02 (0.25)	0.04458 (0.052)	0.1061 (0.194)
ASR_Witd_T	0.0149 (0.238)	0.06382 (0.05)	0.0664 (0.36)
Avg_Weekday_Any_Tobacco_7days	0.1048 (0.24)	0.0851 (0.12)	0.2178 (0.022)
Avg_Weekday_Chew_7days	0.005661 (0.182)	0.006227 (0.078)	0.06624 (0.046)
Avg_Weekday_Cigarettes_7days	0.07318 (0.402)	0.0471 (0.26)	0.1931 (0.062)
Avg_Weekday_Drinks_7days	0.02189 (0.322)	0.04192 (0.626)	0.118 (0.066)



			0.1966
Avg_Weekend_Any_Tobacco_7days	0.06208 (0.322)	0.04804 (0.302)	(0.026)
	0.001132	0.009058	0.09624
Avg_Weekend_Chew_7days	(0.246)	(0.066)	(0.014)
Avg_Weekend_Cigarettes_7days	0.03537 (0.526)	0.02484 (0.424)	0.1823 (0.09)
			0.05495
Avg_Weekend_Drinks_7days	0.1257 (0.298)	0.05857 (0.608)	(0.526)
			0.2428
BMI	0.132 (0.184)	0.04841 (0.626)	(0.104)
BPDiastolic	0.01033 (0.208)	0.05588 (0.334)	0.09589 (0.3)
			0.1668
BPSystolic	0.01058 (0.436)	0.1861 (0.07)	(0.132)
	0.005554		
CardSort_AgeAdj	(0.346)	0.07625 (0.454)	0.22 (0.186)
	0.006331		0.2184
CardSort_Unadj	(0.492)	0.09409 (0.372)	(0.252)
CogCrystalComp_AgeAdj	0.02206 (0.388)	0.1973 (0.254)	0.1132 (0.34)
			0.1378
CogCrystalComp_Unadj	0.03336 (0.316)	0.1543 (0.26)	(0.308)
	0.008192		0.0365
CogEarlyComp_AgeAdj	(0.672)	0.03513 (0.594)	(0.898)
			0.03537
CogEarlyComp_Unadj	0.0424 (0.53)	0.07448 (0.496)	(0.852)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
	0.2708 (p <		0.0867
DDisc_AUC_200	0.00017)	0.08162 (0.458)	(0.492)
			0.08742
DDisc_AUC_40K	0.1258 (0.194)	0.07713 (0.57)	(0.23)
			0.07058
DDisc_SV_10yr_200	0.2046 (0.028)	0.1099 (0.336)	(0.426)
			0.1161
DDisc_SV_10yr_40K	0.07518 (0.252)	0.07417 (0.534)	(0.332)
	0.4474 (p <		
DDisc_SV_1mo_200	0.00017)	0.2235 (0.046)	0.1935 (0.15)
			0.06904
DDisc_SV_1mo_40K	0.0631 (0.482)	0.01383 (0.704)	(0.56)
DDisc_SV_1yr_200	0.1778 (0.088)	0.1171 (0.254)	0.09632 (0.3)
			0.06368
DDisc_SV_1yr_40K	0.07555 (0.432)	0.05212 (0.396)	(0.182)
DDisc_SV_3yr_200	0.1306 (0.016)	0.1043 (0.14)	0.117 (0.144)
DDisc_SV_3yr_40K	0.2346 (0.026)	0.1051 (0.436)	0.1286 (0.06)
	0.2792 (p <		0.08425
DDisc_SV_5yr_200	0.00017)	0.04449 (0.816)	(0.634)
			0.04627
DDisc_SV_5yr_40K	0.1227 (0.122)	0.05338 (0.676)	(0.506)

DDisc_SV_6mo_200	0.1741 (0.05)	0.1905 (0.01)	0.109 (0.15)
DDisc_SV_6mo_40K	0.1451 (0.4)	0.2825 (0.016)	0.08311 (0.264)
Dexterity_AgeAdj	0.01876 (0.472)	0.07645 (0.524)	0.06861 (0.446)
Dexterity_Unadj	0.02081 (0.47)	0.08161 (0.614)	0.07356 (0.428)
DSM_Adh_Raw	0.1286 (0.296)	0.04246 (0.396)	0.1239 (0.186)
DSM_Adh_T	0.1294 (0.418)	0.04269 (0.766)	0.08971 (0.268)
DSM_Antis_Raw	0.09798 (0.186)	0.03491 (0.174)	0.09834 (0.128)
DSM_Antis_T	0.102 (0.186)	0.04924 (0.052)	0.07505 (0.342)
DSM_Anxi_Raw	0.01891 (0.18)	0.2481 (p < 0.00017)	0.1665 (0.024)
DSM_Anxi_T	0.03316 (0.314)	0.1378 (0.016)	0.1454 (0.128)
DSM_Avoid_Raw	0.04534 (0.228)	0.1656 (0.004)	0.05717 (0.34)
DSM_Avoid_T	0.02815 (0.4)	0.2073 (0.002)	0.05308 (0.474)
DSM_Depr_Raw	0.005939 (0.562)	0.04776 (0.096)	0.112 (0.27)
DSM_Depr_T	0.004637 (0.748)	0.05476 (0.158)	0.1042 (0.332)
DSM_Hype_Raw	0.1337 (0.266)	0.1045 (0.03)	0.09209 (0.546)
DSM_Inat_Raw	0.1177 (0.128)	0.03466 (0.376)	0.07789 (0.388)
DSM_Somp_Raw	0.03942 (0.124)	0.05702 (0.084)	0.109 (0.104)
DSM_Somp_T	0.06145 (0.112)	0.06068 (0.074)	0.1023 (0.09)
Emotion_Task_Acc	0.02537 (0.84)	0.08547 (0.046)	0.01509 (0.69)
Emotion_Task_Face_Acc	0.0286 (0.996)	0.05045 (0.32)	0.04961 (0.574)
Emotion_Task_Face_Median_RT	0.08041 (0.506)	0.07866 (0.522)	0.1398 (0.62)
Emotion_Task_Median_RT	0.1146 (0.384)	0.04068 (0.784)	0.1315 (0.802)
Emotion_Task_Shape_Acc	0.01131 (0.582)	0.1383 (0.008)	0.04565 (0.362)
Emotion_Task_Shape_Median_RT	0.08599 (0.376)	0.02675 (0.906)	0.1236 (0.674)
EmotSupp_Unadj	0.07217 (0.112)	2.334E-05 (0.498)	0.1759 (0.02)
Endurance_AgeAdj	0.01384 (0.642)	0.1224 (0.034)	0.08817 (0.194)

Endurance_Unadj	0.01838 (0.694)	0.1064 (0.06)	0.07021 (0.338)
ER40ANG	0.03138 (0.592)	0.09767 (0.106)	0.2182 (0.058)
ER40FEAR	0.03055 (0.83)	0.2872 (0.01)	0.1619 (0.024)
ER40NOE	0.0553 (0.464)	0.05985 (0.652)	0.093 (0.244)
ER40SAD	0.0441 (0.232)	0.04096 (0.572)	0.02462 (0.324)
ER40_CRT	0.04195 (0.074)	0.01153 (0.268)	0.08358 (0.838)
ER40_CR	0.03444 (0.504)	0.1924 (0.256)	0.1283 (0.082)
EVA_Denom	0.08181 (0.522)	0.03055 (0.558)	0.06216 (0.108)
FearAffect_Unadj	0.02093 (0.688)	0.02703 (0.224)	0.03904 (0.404)
FearSomat_Unadj	0.2397 (0.116)	0.06514 (0.942)	0.0865 (0.24)
Flanker_AgeAdj	0.04101 (0.22)	0.09573 (0.852)	0.05716 (0.522)
Flanker_Unadj	0.04027 (0.294)	0.1095 (0.842)	0.06148 (0.548)
Friendship_Unadj	0.05066 (0.234)	0.003363 (0.772)	0.2157 (0.018)
GaitSpeed_Comp	0.09335 (0.04)	0.005852 (0.236)	0.05565 (0.286)
Gambling_Task_Median_RT_Larger	0.1502 (0.214)	0.1708 (0.002)	0.004969 (0.13)
Gambling_Task_Median_RT_Smaller	0.09898 (0.038)	0.1746 (0.016)	0.02893 (0.136)
Gambling_Task_Perc_Larger	0.1354 (0.114)	0.245 (0.088)	0.1884 (0.344)
Gambling_Task_Perc_Smaller	0.1806 (0.042)	0.2485 (0.074)	0.1558 (0.456)
Gambling_Task_Punish_Median_RT_Larger	0.1327 (0.336)	0.1753 (p < 0.00017)	0.01302 (0.168)
Gambling_Task_Punish_Median_RT_Smaller	0.08535 (0.034)	0.1854 (0.004)	0.02311 (0.188)
Gambling_Task_Punish_Perc_Larger	0.04456 (0.474)	0.2168 (0.144)	0.1344 (0.19)
Gambling_Task_Punish_Perc_Smaller	0.04167 (0.448)	0.2032 (0.18)	0.1304 (0.212)
Gambling_Task_Reward_Median_RT_Larger	0.1857 (0.078)	0.09079 (0.04)	0.01955 (0.042)
Gambling_Task_Reward_Median_RT_Smaller	0.08393 (0.15)	0.1923 (0.002)	0.0605 (0.07)
Gambling_Task_Reward_Perc_Larger	0.07894 (0.476)	0.03389 (0.532)	0.1769 (0.034)
Gambling_Task_Reward_Perc_Smaller	0.08737 (0.458)	0.03725 (0.554)	0.1835 (0.02)

Handedness	0.06806 (0.23)	0.04526 (0.982)	0.07242 (0.348)
Height	0.05438 (0.224)	0.09211 (0.472)	0.1615 (0.014)
InstruSupp_Unadj	0.02874 (0.634)	0.03466 (0.272)	0.05363 (0.212)
IWRD_RTC	0.07196 (0.366)	0.008678 (0.264)	0.1197 (0.036)
IWRD_TOT	0.08028 (0.234)	0.05735 (0.73)	0.06912 (0.478)
Language_Task_Acc	0.09371 (0.91)	0.2416 (0.874)	0.1212 (0.152)
Language_Task_Math_Acc	0.1123 (0.408)	0.1026 (0.892)	0.222 (0.018)
Language_Task_Math_Avg_Difficulty_Level	0.133 (0.462)	0.3321 (0.002)	0.03677 (0.874)
Language_Task_Math_Median_RT	0.004854 (0.35)	0.05155 (0.548)	0.1229 (0.168)
Language_Task_Median_RT	0.01006 (0.17)	0.1118 (0.228)	0.07718 (0.116)
Language_Task_Story_Acc	0.06953 (0.546)	0.342 (0.01)	0.1358 (0.192)
Language_Task_Story_Avg_Difficulty_Level	0.1424 (0.58)	0.16 (0.942)	0.09104 (0.568)
Language_Task_Story_Median_RT	0.01377 (0.228)	0.103 (0.358)	0.04595 (0.252)
LifeSatisf_Unadj	0.123 (0.078)	0.08039 (0.076)	0.2909 (0.036)
ListSort_AgeAdj	0.02977 (0.902)	0.02298 (0.204)	0.08494 (0.166)
ListSort_Unadj	0.04786 (0.79)	0.04669 (0.134)	0.1068 (0.186)
Loneliness_Unadj	0.1289 (0.014)	0.009704 (0.648)	0.1036 (0.102)
Mars_Errs	0.1008 (0.644)	0.08026 (0.432)	0.04413 (0.806)
Mars_Final	0.04616 (0.562)	0.06773 (0.288)	0.0879 (0.368)
Mars_Log_Score	0.06297 (0.336)	0.02287 (0.188)	0.0413 (0.598)
MeanPurp_Unadj	0.08741 (0.228)	0.06683 (0.71)	0.09955 (0.062)
MMSE_Score	0.03605 (0.516)	0.03678 (0.132)	0.02456 (0.716)
Noise_Comp	0.002613 (0.324)	0.08154 (0.684)	0.02122 (0.44)
Num_Days_Drank_7days	0.009202 (0.372)	0.07556 (0.592)	0.05661 (0.138)
Num_Days_Used_Any_Tobacco_7days	0.1247 (0.338)	0.07736 (0.102)	0.2509 (0.008)

Odor_AgeAdj	0.05302 (0.38)	0.01186 (0.758)	0.02979 (0.066)
Odor_Unadj	0.06385 (0.344)	0.02857 (0.742)	0.03628 (0.016)
PainIntens_RawScore	0.2341 (0.01)	0.1807 (0.128)	0.05799 (0.932)
PainInterf_Tscore	0.1911 (p < 0.00017)	0.1905 (0.03)	0.08944 (0.566)
PercHostil_Unadj	0.04604 (0.186)	0.02401 (0.608)	0.1527 (0.054)
PercReject_Unadj	0.01914 (0.48)	0.01421 (0.82)	0.08167 (0.096)
PercStress_Unadj	0.07037 (0.436)	0.008372 (0.388)	0.08505 (0.116)
PicSeq_AgeAdj	0.08004 (0.236)	0.02814 (0.564)	0.0381 (0.352)
PicSeq_Unadj	0.124 (0.122)	0.04712 (0.458)	0.03984 (0.36)
PicVocab_AgeAdj	0.05486 (0.568)	0.2463 (0.034)	0.2448 (0.016)
PicVocab_Unadj	0.05631 (0.45)	0.1766 (0.062)	0.2702 (0.022)
PMAT24_A_CR	0.008353 (0.678)	0.2733 (0.02)	0.1553 (0.154)
PMAT24_A_RTCR	0.03708 (0.44)	0.2517 (0.144)	0.03829 (0.988)
PMAT24_A_SI	0.007277 (0.48)	0.2575 (0.014)	0.09859 (0.348)
PosAffect_Unadj	0.0216 (0.372)	0.04076 (0.832)	0.02299 (0.238)
ProcSpeed_AgeAdj	0.006082 (0.148)	0.03356 (0.798)	0.02555 (0.824)
ProcSpeed_Unadj	0.03853 (0.11)	0.05044 (0.796)	0.01672 (0.85)
PSQI_AmtSleep	0.191 (0.14)	0.1731 (0.168)	0.1817 (0.028)
PSQI_BadDream	0.03697 (0.47)	0.02944 (0.882)	0.08893 (0.198)
PSQI_Bathroom	0.05701 (0.358)	0.08731 (0.562)	0.2159 (0.112)
PSQI_BedPtnrRmate	0.07881 (0.232)	0.04494 (0.264)	0.07664 (0.36)
PSQI_BedTime	0.05105 (0.32)	0.1844 (0.072)	0.0349 (0.516)
PSQI_Breathe	0.000368 (0.652)	0.05603 (0.486)	0.02004 (0.622)
PSQI_Comp1	0.02534 (0.178)	0.03305 (0.432)	0.07589 (0.176)
PSQI_Comp2	0.07828 (0.736)	0.07515 (0.836)	0.01811 (0.562)

PSQI_Comp3	0.1002 (0.41)	0.1316 (0.502)	0.1513 (0.07)
PSQI_Comp4	0.006482 (0.566)	0.1327 (0.272)	0.1073 (0.304)
PSQI_Comp5	0.003665 (0.754)	0.0595 (0.482)	0.1091 (0.216)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.06183 (0.808)	0.2019 (0.138)	0.09734 (0.68)
PSQI_DayEnthusiasm	0.02561 (0.84)	0.06666 (0.542)	0.1575 (0.364)
PSQI_DayStayAwake	0.09391 (0.556)	0.186 (0.3)	0.05145 (0.368)
PSQI_GetUpTime	0.1307 (0.19)	0.1593 (0.144)	0.1444 (0.322)
PSQI_Latency30Min	0.08665 (0.494)	0.1178 (0.69)	0.02154 (0.184)
PSQI_Min2Asleep	0.08268 (0.888)	0.08562 (0.748)	0.02727 (0.584)
PSQI_Other	0.005663 (0.892)	0.0102 (0.64)	0.01402 (0.168)
PSQI_Pain	0.1772 (0.066)	0.07959 (0.6)	0.0848 (0.074)
PSQI_Quality	0.0211 (0.204)	0.02616 (0.46)	0.06033 (0.206)
PSQI_Score	0.02261 (0.538)	0.1064 (0.258)	0.03249 (0.466)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0.1262 (0.1)	0.1024 (0.13)	0.1211 (0.504)
PSQI_TooCold	0.065 (0.596)	0.04596 (0.868)	0.09273 (0.842)
PSQI_TooHot	0.1956 (0.13)	0.02551 (0.85)	0.2277 (0.046)
PSQI_WakeUp	0.0216 (0.514)	0.08622 (0.326)	0.04282 (0.42)
Race	0.1031 (0.3)	0.1469 (0.078)	0.04969 (0.692)
ReadEng_AgeAdj	0.035 (0.368)	0.07598 (0.626)	0.04833 (0.604)
ReadEng_Unadj	0.01202 (0.502)	0.08055 (0.56)	0.03822 (0.558)
Relational_Task_Acc	0.02923 (0.48)	0.1611 (0.17)	0.1175 (0.084)
Relational_Task_Match_Acc	0.02803 (0.218)	0.07671 (0.48)	0.03503 (0.258)
Relational_Task_Match_Median_RT	0.05367 (0.416)	0.1615 (0.354)	0.07337 (0.246)
Relational_Task_Median_RT	0.04479 (0.294)	0.1107 (0.642)	0.07582 (0.132)

Relational_Task_Rel_Acc	0.1169 (0.518)	0.2361 (0.024)	0.1315 (0.024)
Relational_Task_Rel_Median_RT	0.0651 (0.134)	0.06854 (0.732)	0.07957 (0.126)
Sadness_Unadj	0.1312 (0.112)	0.08417 (0.378)	0.05113 (0.162)
SCPT_FN	0.157 (0.302)	0.02925 (0.704)	0.03524 (0.786)
SCPT_FP	0.09759 (0.118)	0.04474 (0.212)	0.01232 (0.438)
SCPT_LRNR	0.06809 (0.206)	0.2887 (0.044)	0.08641 (0.196)
SCPT_SEN	0.1857 (0.222)	0.03322 (0.666)	0.05393 (0.738)
SCPT_SPEC	0.09155 (0.12)	0.04976 (0.186)	0.02026 (0.426)
SCPT_TN	0.08271 (0.15)	0.06649 (0.162)	0.02181 (0.364)
SCPT_TPRT	0.06128 (0.364)	0.1576 (0.17)	0.04683 (0.462)
SCPT_TP	0.1661 (0.282)	0.02728 (0.702)	0.03815 (0.778)
SelfEff_Unadj	0.05832 (0.034)	0.0356 (0.594)	0.1915 (0.006)
Social_Task_Perc_Random	0.1234 (0.49)	0.007141 (0.902)	0.03242 (0.392)
Social_Task_Perc_TOM	0.008164 (0.876)	0.02763 (0.914)	0.03211 (0.356)
Social_Task_Perc_Unsure	0.1065 (0.264)	0.01457 (0.946)	0.1056 (0.128)
Social_Task_Random_Perc_Random	0.08966 (0.63)	0.01244 (0.76)	0.03419 (0.376)
Social_Task_Random_Perc_TOM	0.07897 (0.414)	0.07249 (0.628)	0.02991 (0.506)
Social_Task_Random_Perc_Unsure	0.1472 (0.356)	0.01925 (0.918)	0.1012 (0.22)
Social_Task_TOM_Median_RT_TOM	0.03475 (0.23)	0.006285 (0.97)	0.02595 (0.67)
Social_Task_TOM_Perc_Random	0.04133 (0.394)	0.01925 (0.112)	0 (1)
Social_Task_TOM_Perc_TOM	0.01676 (0.906)	0.06071 (0.568)	0.06322 (0.158)
Social_Task_TOM_Perc_Unsure	0.07807 (0.13)	0.004599 (0.632)	0.02506 (0.154)
SSAGA_Alc_D4_Dp_Sx	0.1136 (0.048)	0.2144 (0.018)	0.09045 (0.668)
SSAGA_BMICatHeaviest	0.2445 (0.216)	0.04175 (0.956)	0.1754 (0.36)
SSAGA_BMICat	0.2017 (0.108)	0.08304 (0.436)	0.1652 (0.52)
SSAGA_ChildhoodConduct	0.08984 (0.496)	0.1292 (0.634)	0.02825 (0.858)

SSAGA_Depressive_Sx	0.03377 (0.448)	0.3211 (0.004)	0.07397 (0.148)
SSAGA_Educ	0.0331 (0.784)	0.1336 (0.256)	0.2018 (0.02)
SSAGA_Income	0.07022 (0.16)	0.03815 (0.226)	0.03504 (0.282)
SSAGA_Mj_Times_Used	0.06884 (0.214)	0.02823 (0.412)	0.09263 (0.106)
SSAGA_TB_Smoking_History	0.1675 (0.546)	0.09292 (0.422)	0.2953 (p < 0.00017)
SSAGA_Times_Used_Hallucinogens	0.09715 (0.266)	0.05401 (0.694)	0.07687 (0.818)
SSAGA_Times_Used_Illicits	0.05016 (0.756)	0.04469 (0.726)	0.04766 (0.532)
Strength_AgeAdj	0.2137 (0.028)	0.124 (0.248)	0.2213 (0.032)
Strength_Unadj	0.1877 (0.018)	0.16 (0.132)	0.2166 (0.032)
Taste_AgeAdj	0.0947 (0.12)	0.09714 (0.178)	0.2184 (0.024)
Taste_Unadj	0.09871 (0.118)	0.08329 (0.222)	0.2039 (0.026)
Times_Used_Any_Tobacco_Today	0.07478 (0.304)	0.01169 (0.396)	0.07336 (0.4)
Total_Any_Tobacco_7days	0.09164 (0.288)	0.04795 (0.252)	0.2091 (0.026)
Total_Chew_7days	0.01246 (0.244)	0.01642 (0.046)	0.05661 (0.042)
Total_Cigarettes_7days	0.06903 (0.398)	0.04573 (0.316)	0.1957 (0.066)
Total_Drinks_7days	0.05435 (0.528)	0.04283 (0.68)	0.09561 (0.094)
VSPLOT_CRTE	0.05465 (0.086)	0.1135 (0.61)	0.1349 (0.654)
VSPLOT_OFF	0.01575 (0.85)	0.06633 (0.458)	0.03417 (0.92)
VSPLOT_TC	0.01041 (0.91)	0.1118 (0.184)	0.09084 (0.392)
Weight	0.2109 (0.028)	0.08069 (0.134)	0.3161 (0.012)
WM_Task_Obk_Acc	0.05027 (0.624)	0.08535 (0.05)	0.09022 (0.06)
WM_Task_Obk_Body_Acc	0.05602 (0.774)	0.05809 (0.106)	0.1674 (0.028)
WM_Task_Obk_Body_Acc_Nontarget	0.02631 (0.88)	0.02496 (0.298)	0.1766 (0.07)
WM_Task_Obk_Body_Acc_Target	0.0624 (0.444)	0.09447 (0.212)	0.1439 (0.078)
WM_Task_Obk_Body_Median_RT	0.1726 (0.158)	0.1644 (0.006)	0.1166 (0.108)
WM_Task_Obk_Body_Median_RT_Nontarget	0.1853 (0.104)	0.1927 (0.008)	0.1572 (0.056)



WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.1083 (0.316)	0.1708 (0.022)	0.1163 (0.44)
WM_Task_Obk_Face_ACC_Nontarget	0.08642 (0.472)	0.1094 (0.202)	0.07886 (0.356)
WM_Task_Obk_Face_Acc_Target	0.126 (0.094)	0.107 (0.092)	0.05414 (0.666)
WM_Task_Obk_Face_Median_RT	0.05436 (0.606)	0.2135 (0.006)	0.01512 (0.19)
WM_Task_Obk_Face_Median_RT_Nontarget	0.06486 (0.558)	0.2223 (0.014)	0.02324 (0.232)
WM_Task_Obk_Face_Median_RT_Target	0.0348 (0.278)	0.2871 (p < 0.00017)	0.03544 (0.54)
WM_Task_Obk_Median_RT	0.08171 (0.43)	0.1696 (0.022)	0.04637 (0.428)
WM_Task_Obk_Place_Acc	0.04604 (0.324)	0.09042 (0.128)	0.06977 (0.372)
WM_Task_Obk_Place_Acc_Nontarget	0.1288 (0.286)	0.04156 (0.458)	0.0627 (0.632)
WM_Task_Obk_Place_Acc_Target	0.0313 (0.094)	0.07672 (0.106)	0.01927 (0.342)
WM_Task_Obk_Place_Median_RT	0.1079 (0.272)	0.07303 (0.498)	0.0476 (0.652)
WM_Task_Obk_Place_Median_RT_Nontarget	0.1239 (0.212)	0.08053 (0.478)	0.05059 (0.538)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.01257 (0.646)	0.03646 (0.17)	0.0403 (0.156)
WM_Task_Obk_Tool_Acc_Nontarget	0.02357 (0.468)	0.05332 (0.244)	0.06415 (0.148)
WM_Task_Obk_Tool_Acc_Target	0.0316 (0.808)	0.03398 (0.47)	0.02479 (0.286)
WM_Task_Obk_Tool_Median_RT	0.1274 (0.454)	0.08585 (0.214)	0.036 (0.838)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.1511 (0.522)	0.08817 (0.186)	0.03768 (0.694)
WM_Task_Obk_Tool_Median_RT_Target	0.03845 (0.516)	0.06851 (0.29)	0.02837 (0.922)
WM_Task_2bk_Acc	0.04761 (0.262)	0.02842 (0.834)	0.1114 (0.328)
WM_Task_2bk_Body_Acc	0.03339 (0.476)	0.1034 (0.64)	0.05086 (0.134)
WM_Task_2bk_Body_Acc_Nontarget	0.03315 (0.528)	0.06145 (0.714)	0.0219 (0.232)
WM_Task_2bk_Body_Acc_Target	0.0822 (0.514)	0.04045 (0.856)	0.04028 (0.53)
WM_Task_2bk_Body_Median_RT	0.06693 (0.392)	0.1137 (0.642)	0.09682 (0.124)

WM_Task_2bk_Body_Median_RT_Nontarget	0.03986 (0.642)	0.1585 (0.476)	0.09008 (0.102)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.01721 (0.812)	0.09229 (0.028)	0.1468 (0.054)
WM_Task_2bk_Face_Acc_Nontarget	0.06439 (0.49)	0.1343 (0.032)	0.1445 (0.096)
WM_Task_2bk_Face_Acc_Target	0.04109 (0.354)	0.03043 (0.204)	0.01947 (0.606)
WM_Task_2bk_Face_Median_RT	0.05113 (0.38)	0.08517 (0.524)	0.1242 (0.23)
WM_Task_2bk_Face_Median_RT_Nontarget	0.03792 (0.702)	0.01488 (0.756)	0.07933 (0.266)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.08444 (0.258)	0.1003 (0.386)	0.09852 (0.262)
WM_Task_2bk_Place_Acc	0.05505 (0.666)	0.05499 (0.942)	0.05474 (0.776)
WM_Task_2bk_Place_Acc_Nontarget	0.0576 (0.646)	0.117 (0.616)	0.04258 (0.42)
WM_Task_2bk_Place_Acc_Target	0.09505 (0.284)	0.0416 (0.568)	0.01488 (0.938)
WM_Task_2bk_Place_Median_RT	0.08532 (0.25)	0.0883 (0.274)	0.1696 (0.09)
WM_Task_2bk_Place_Median_RT_Nontarget	0.05877 (0.37)	0.08866 (0.174)	0.1613 (0.14)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.03526 (0.126)	0.02869 (0.43)	0.0794 (0.928)
WM_Task_2bk_Tool_Acc_Nontarget	0.03144 (0.316)	0.04691 (0.416)	0.1229 (0.406)
WM_Task_2bk_Tool_Acc_Target	0.1126 (0.054)	0.08113 (0.314)	0.0117 (0.958)
WM_Task_2bk_Tool_Median_RT	0.1531 (0.056)	0.04502 (0.514)	0.0265 (0.362)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.175 (0.08)	0.05556 (0.63)	0.02061 (0.446)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.02267 (0.886)	0.09616 (0.588)	0.1085 (0.106)
WM_Task_Median_RT	0.08117 (0.436)	0.09269 (0.268)	0.06613 (0.458)
ZygotitySR	0.04184 (0.76)	0.1025 (0.556)	0.123 (0.242)

1200 volumes   50 subjects			
	tfMRI_RELATIO NAL	tfMRI_SOCIAL	tfMRI_WM
Age_in_Yrs	0.0607 (0.638)	0.06517 (0.588)	0.167 (0.1)
AngAffect_Unadj	0.02826 (0.194)	0.07292 (0.526)	0.1252 (0.152)
AngAggr_Unadj	0.01734 (0.582)	0.03911 (0.696)	0.02168 (0.39)
AngHostil_Unadj	0.0591 (0.906)	0.02405 (0.536)	0.1507 (0.502)
ASR_Aggr_Raw	0.08282 (0.41)	0.05457 (0.254)	0.169 (0.724)
ASR_Aggr_T	0.05028 (0.632)	0.08465 (0.134)	0.1403 (0.882)
ASR_Anxd_Pct	0.1058 (0.048)	0.06926 (0.106)	0.04753 (0.904)
ASR_Anxd_Raw	0.1203 (0.08)	0.07158 (0.086)	0.04471 (0.992)
ASR_Attn_Raw	0.1103 (0.136)	0.05186 (0.15)	0.1005 (0.7)
ASR_Attn_T	0.1001 (0.208)	0.05768 (0.234)	0.1454 (0.35)
ASR_Crit_Raw	0.1618 (0.136)	0.1744 (0.244)	0.1779 (0.076)
ASR_Extn_Raw	0.192 (0.024)	0.09382 (0.33)	0.1284 (0.542)
ASR_Extn_T	0.2015 (0.014)	0.05408 (0.51)	0.08862 (0.66)
ASR_Intn_Raw	0.09232 (0.166)	0.09363 (0.108)	0.05799 (0.932)
ASR_Intn_T	0.08917 (0.146)	0.08989 (0.046)	0.07757 (0.896)
ASR_Intr_Raw	0.1179 (0.17)	0.12 (0.222)	0.09387 (0.45)
ASR_Intr_T	0.08662 (0.256)	0.1399 (0.438)	0.1267 (0.354)
ASR_Oth_Raw	0.1143 (0.388)	0.1196 (0.366)	0.1006 (0.71)
ASR_Rule_Raw	0.2062 (0.036)	0.1269 (0.612)	0.03679 (0.806)
ASR_Rule_T	0.1752 (0.07)	0.1337 (0.534)	0.04205 (0.82)
ASR_Soma_Raw	0.1617 (0.032)	0.119 (0.366)	0.07818 (0.764)
ASR_Soma_T	0.1522 (0.16)	0.08296 (0.33)	0.03608 (0.744)
ASR_TAO_Sum	0.1017 (0.244)	0.1993 (0.106)	0.1038 (0.836)
ASR_Thot_Raw	0.07693 (0.292)	0.2756 (0.058)	0.08619 (0.12)
ASR_Thot_T	0.09099 (0.294)	0.2368 (0.17)	0.04822 (0.128)
ASR_Totp_Raw	0.1608 (0.09)	0.1545 (0.068)	0.1451 (0.794)
ASR_Totp_T	0.1867 (0.034)	0.1398 (0.14)	0.1415 (0.728)

ASR_Witd_Raw	0.03658 (0.236)	0.06952 (0.246)	0.09034 (0.44)
ASR_Witd_T	0.0499 (0.208)	0.0379 (0.504)	0.08498 (0.444)
Avg_Weekday_Any_Tobacco_7days	0.127 (0.188)	0.0429 (0.614)	0.1145 (0.598)
Avg_Weekday_CheW_7days	0.0005661 (0.108)	0.01132 (0.004)	0.02831 (p < 0.00017)
Avg_Weekday_Cigarettes_7days	0.1197 (0.344)	0.04458 (0.526)	0.08463 (0.77)
Avg_Weekday_Drinks_7days	0.08106 (0.14)	0.09441 (0.144)	0.0776 (0.34)
Avg_Weekend_Any_Tobacco_7days	0.1211 (0.216)	0.05633 (0.64)	0.1053 (0.628)
Avg_Weekend_CheW_7days	0.002265 (0.096)	0.001132 (p < 0.00017)	0.07416 (p < 0.00017)
Avg_Weekend_Cigarettes_7days	0.0841 (0.566)	0.03456 (0.64)	0.1146 (0.642)
Avg_Weekend_Drinks_7days	0.02405 (0.506)	0.1415 (0.422)	0.02298 (0.734)
BMI	0.09145 (0.01)	0.05858 (0.264)	0.09602 (0.674)
BPDiastolic	0.07499 (0.804)	0.0463 (0.54)	0.08455 (0.732)
BPSystolic	0.1715 (0.246)	0.02604 (0.334)	0.1925 (0.74)
CardSort_AgeAdj	0.1052 (0.758)	0.02105 (0.436)	0.0802 (0.394)
CardSort_Unadj	0.09595 (0.74)	0.02404 (0.516)	0.1182 (0.342)
CogCrystalComp_AgeAdj	0.1544 (0.096)	0.0665 (0.602)	0.02718 (0.674)
CogCrystalComp_Unadj	0.1033 (0.3)	0.1044 (0.352)	0.04793 (0.614)
CogEarlyComp_AgeAdj	0.01398 (0.77)	0.02322 (0.334)	0.03803 (0.614)
CogEarlyComp_Unadj	0.03508 (0.67)	0.03635 (0.262)	0.03239 (0.724)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.2022 (0.086)	0.04526 (0.886)	0.1632 (0.192)
DDisc_AUC_40K	0.1478 (0.222)	0.06707 (0.692)	0.2045 (0.71)
DDisc_SV_10yr_200	0.09826 (0.498)	0.04031 (0.936)	0.07528 (0.38)
DDisc_SV_10yr_40K	0.1045 (0.348)	0.1225 (0.53)	0.122 (0.848)
DDisc_SV_1mo_200	0.07063 (0.512)	0.1065 (0.288)	0.121 (0.422)

DDisc_SV_1mo_40K	0.08616 (0.078)	0.2082 (0.008)	0.03187 (0.364)
DDisc_SV_1yr_200	0.3491 (0.012)	0.05801 (0.712)	0.2443 (0.344)
DDisc_SV_1yr_40K	0.08797 (0.076)	0.08398 (0.566)	0.04375 (0.976)
DDisc_SV_3yr_200	0.1047 (0.21)	0.06817 (0.22)	0.0956 (0.248)
DDisc_SV_3yr_40K	0.1143 (0.022)	0.0607 (0.736)	0.1297 (0.714)
DDisc_SV_5yr_200	0.124 (0.354)	0.06986 (0.81)	0.09853 (0.296)
DDisc_SV_5yr_40K	0.1385 (0.482)	0.08157 (0.612)	0.2065 (0.56)
DDisc_SV_6mo_200	0.3452 (0.004)	0.1222 (0.07)	0.2151 (0.612)
DDisc_SV_6mo_40K	0.08707 (0.188)	0.07974 (0.448)	0.1936 (0.836)
Dexterity_AgeAdj	0.1733 (0.006)	0.01736 (0.83)	0.0654 (0.768)
Dexterity_Unadj	0.1522 (0.012)	0.01319 (0.74)	0.05127 (0.79)
DSM_Adh_Raw	0.1229 (0.086)	0.1014 (0.15)	0.1198 (0.744)
DSM_Adh_T	0.05549 (0.334)	0.1094 (0.232)	0.1664 (0.466)
DSM_Antis_Raw	0.1217 (0.254)	0.02303 (0.462)	0.09562 (0.716)
DSM_Antis_T	0.1359 (0.164)	0.03332 (0.454)	0.09165 (0.88)
DSM_Anxi_Raw	0.0722 (0.722)	0.2122 (0.052)	0.02819 (0.902)
DSM_Anxi_T	0.09496 (0.576)	0.1295 (0.364)	0.04063 (0.662)
DSM_Avoid_Raw	0.01315 (0.75)	0.05029 (0.296)	0.09849 (0.902)
DSM_Avoid_T	0.02704 (0.654)	0.02346 (0.502)	0.1162 (0.806)
DSM_Depr_Raw	0.161 (0.23)	0.05576 (0.204)	0.08159 (0.746)
DSM_Depr_T	0.1371 (0.242)	0.08009 (0.168)	0.07007 (0.77)
DSM_Hype_Raw	0.1047 (0.314)	0.2596 (0.022)	0.07885 (0.726)
DSM_Inat_Raw	0.06264 (0.186)	0.02433 (0.372)	0.1533 (0.682)
DSM_Somp_Raw	0.164 (0.076)	0.1209 (0.042)	0.08574 (0.694)
DSM_Somp_T	0.1991 (0.064)	0.1145 (0.012)	0.04447 (0.74)
Emotion_Task_Acc	0.01725 (0.25)	0.04336 (0.09)	0.004591 (0.474)
Emotion_Task_Face_Acc	0.0988 (0.738)	0.01052 (0.55)	0.1037 (0.318)
Emotion_Task_Face_Median_RT	0.01136 (0.638)	0.03817 (0.792)	0.08101 (0.372)

Emotion_Task_Median_RT	0.01502 (0.504)	0.03282 (0.832)	0.06818 (0.486)
Emotion_Task_Shape_Acc	0.06493 (0.42)	0.03748 (0.234)	0.003038 (0.316)
Emotion_Task_Shape_Median_RT	0.04192 (0.226)	0.05451 (0.75)	0.0446 (0.716)
EmotSupp_Unadj	0.1563 (0.112)	0.01989 (0.494)	0.03145 (0.858)
Endurance_AgeAdj	0.1446 (0.138)	0.1731 (0.02)	0.07215 (0.282)
Endurance_Unadj	0.1933 (0.086)	0.159 (0.03)	0.07785 (0.296)
ER40ANG	0.05122 (0.238)	0.02048 (0.306)	0.01432 (0.592)
ER40FEAR	0.1126 (0.112)	0.02846 (0.848)	0.05008 (0.748)
ER40NOE	0.02229 (0.916)	0.1904 (0.042)	0.06436 (0.696)
ER40SAD	0.03184 (0.636)	0.1309 (0.236)	0.0954 (0.212)
ER40_CRT	0.04523 (0.376)	0.01277 (0.302)	0.0303 (0.644)
ER40_CR	0.08178 (0.186)	0.05989 (0.4)	0.05519 (0.642)
EVA_Denom	0.1573 (0.244)	0.3139 (p < 0.00017)	0.1583 (0.054)
FearAffect_Unadj	0.02026 (0.246)	0.04514 (0.154)	0.0538 (0.204)
FearSomat_Unadj	0.1845 (0.076)	0.1707 (0.008)	0.1031 (0.174)
Flanker_AgeAdj	0.02956 (0.418)	0.01799 (0.34)	0.02885 (0.844)
Flanker_Unadj	0.03945 (0.372)	0.01232 (0.386)	0.05346 (0.74)
Friendship_Unadj	0.07065 (0.088)	0.04995 (0.656)	0.07386 (0.676)
GaitSpeed_Comp	0.1612 (0.034)	0.1426 (0.094)	0.02736 (0.708)
Gambling_Task_Median_RT_Larger	0.3601 (p < 0.00017)	0.2381 (p < 0.00017)	0.1019 (0.672)
Gambling_Task_Median_RT_Smaller	0.2488 (0.016)	0.1298 (0.01)	0.1246 (0.446)
Gambling_Task_Perc_Larger	0.168 (0.056)	0.08923 (0.064)	0.1195 (0.376)
Gambling_Task_Perc_Smaller	0.1533 (0.096)	0.1029 (0.042)	0.1192 (0.37)
Gambling_Task_Punish_Median_RT_Larger	0.3619 (p < 0.00017)	0.1997 (0.002)	0.1074 (0.66)
Gambling_Task_Punish_Median_RT_Smaller	0.1238 (0.352)	0.07159 (0.12)	0.1114 (0.456)
Gambling_Task_Punish_Perc_Larger	0.2007 (0.038)	0.2364 (0.044)	0.04974 (0.694)

Gambling_Task_Punish_Perc_Smaller	0.1802 (0.064)	0.2693 (0.014)	0.05134 (0.662)
Gambling_Task_Reward_Median_RT_Larger	0.3647 (p < 0.00017)	0.2232 (p < 0.00017)	0.07942 (0.734)
Gambling_Task_Reward_Median_RT_Smaller	0.3369 (p < 0.00017)	0.2518 (p < 0.00017)	0.1211 (0.398)
Gambling_Task_Reward_Perc_Larger	0.06399 (0.196)	0.01939 (0.886)	0.1394 (0.444)
Gambling_Task_Reward_Perc_Smaller	0.09101 (0.114)	0.0401 (0.844)	0.1353 (0.494)
Handedness	0.02394 (0.586)	0.03421 (0.646)	0.1617 (0.278)
Height	0.1763 (0.046)	0.06797 (0.466)	0.2099 (0.476)
InstruSupp_Unadj	0.08221 (0.136)	0.1192 (0.134)	0.04885 (0.53)
IWRD_RTC	0.008874 (0.706)	0.0467 (0.188)	0.06677 (0.512)
IWRD_TOT	0.04386 (0.43)	0.0525 (0.166)	0.1338 (0.328)
Language_Task_Acc	0.2872 (0.05)	0.009063 (0.752)	0.1976 (0.346)
Language_Task_Math_Acc	0.2384 (0.026)	0.05386 (0.38)	0.1022 (0.724)
Language_Task_Math_Avg_Difficulty_Level	0.1409 (0.666)	0.009574 (0.852)	0.005765 (0.898)
Language_Task_Math_Median_RT	0.08345 (0.324)	0.02533 (0.86)	0.02339 (0.29)
Language_Task_Median_RT	0.07148 (0.51)	0.01552 (0.558)	0.01236 (0.286)
Language_Task_Story_Acc	0.1515 (0.27)	0.00348 (0.406)	0.03752 (0.152)
Language_Task_Story_Avg_Difficulty_Level	0.1842 (0.23)	0.03152 (0.598)	0.2122 (0.588)
Language_Task_Story_Median_RT	0.06333 (0.29)	0.005854 (0.554)	0.05807 (0.248)
LifeSatisf_Unadj	0.2037 (0.056)	0.05682 (0.276)	0.05387 (0.662)
ListSort_AgeAdj	0.1702 (0.004)	0.0453 (0.166)	0.07177 (0.678)
ListSort_Unadj	0.1452 (0.016)	0.05524 (0.214)	0.06616 (0.838)
Loneliness_Unadj	0.03483 (0.514)	0.04135 (0.338)	0.04867 (0.88)
Mars_Errs	0.02676 (0.836)	0.08147 (0.924)	0.0929 (0.934)
Mars_Final	0.07205 (0.702)	0.04895 (0.354)	0.1499 (0.056)
Mars_Log_Score	0.03947 (0.58)	0.0391 (0.474)	0.08079 (0.238)
MeanPurp_Unadj	0.05402 (0.852)	0.0994 (0.102)	0.1054 (0.286)
MMSE_Score	0.05696 (0.72)	0.02156 (0.616)	0.1785 (0.562)

Noise_Comp	0.07694 (0.062)	0.2208 (0.056)	0.007563 (0.612)
Num_Days_Drank_7days	0.08155 (0.362)	0.1691 (0.112)	0.007773 (0.686)
Num_Days_Used_Any_Tobacco_7days	0.2348 (0.084)	0.04185 (0.576)	0.1213 (0.43)
Odor_AgeAdj	0.1019 (0.07)	0.153 (p < 0.00017)	0.0538 (0.818)
Odor_Unadj	0.139 (0.016)	0.1427 (0.002)	0.09065 (0.634)
PainIntens_RawScore	0.1915 (0.372)	0.08878 (0.028)	0.2045 (0.146)
PainInterf_Tscore	0.1581 (0.362)	0.1143 (0.026)	0.08768 (0.504)
PercHostil_Unadj	0.07447 (0.312)	0.06332 (0.088)	0.02635 (0.532)
PercReject_Unadj	0.06879 (0.168)	0.08056 (0.294)	0.05979 (0.248)
PercStress_Unadj	0.1138 (0.01)	0.06074 (0.11)	0.03223 (0.954)
PicSeq_AgeAdj	0.05205 (0.374)	0.09152 (0.156)	0.05122 (0.82)
PicSeq_Unadj	0.04331 (0.414)	0.09285 (0.212)	0.03534 (0.842)
PicVocab_AgeAdj	0.2313 (0.124)	0.02243 (0.818)	0.03791 (0.56)
PicVocab_Unadj	0.1432 (0.536)	0.04115 (0.67)	0.01674 (0.696)
PMAT24_A_CR	0.06051 (0.194)	0.1118 (0.656)	0.1324 (0.302)
PMAT24_A_RTCT	0.1506 (0.084)	0.0343 (0.538)	0.2025 (0.06)
PMAT24_A_SI	0.03827 (0.464)	0.06516 (0.894)	0.15 (0.39)
PosAffect_Unadj	0.1494 (0.202)	0.02208 (0.554)	0.1533 (0.328)
ProcSpeed_AgeAdj	0.04207 (0.814)	0.1139 (0.266)	0.07183 (0.238)
ProcSpeed_Unadj	0.02383 (0.752)	0.1312 (0.186)	0.1027 (0.156)
PSQI_AmtSleep	0.09588 (0.076)	0.01903 (0.788)	0.0563 (0.472)
PSQI_BadDream	0.07052 (0.516)	0.08255 (0.172)	0.05003 (0.27)
PSQI_Bathroom	0.1077 (0.114)	0.06391 (0.066)	0.0514 (0.184)
PSQI_BedPtnrRmate	0.2103 (0.038)	0.07732 (0.168)	0.2918 (0.072)
PSQI_BedTime	0.07754 (0.104)	0.1257 (0.626)	0.07659 (0.572)
PSQI_Breathe	0.132 (0.856)	0.02777 (0.364)	0.0005661 (0.002)



PSQI_Comp1	0.09101 (0.32)	0.0721 (0.766)	0.01847 (0.232)
PSQI_Comp2	0.05056 (0.45)	0.04606 (0.754)	0.149 (0.31)
PSQI_Comp3	0.1097 (0.032)	0.00823 (0.732)	0.06874 (0.58)
PSQI_Comp4	0.01288 (0.508)	0.02189 (0.814)	0.032 (0.478)
PSQI_Comp5	0.1705 (0.014)	0.02882 (0.694)	0.006202 (p < 0.00017)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.1764 (0.042)	0.1878 (0.002)	0.1359 (0.438)
PSQI_DayEnthusiasm	0.1105 (0.176)	0.1566 (p < 0.00017)	0.1475 (0.612)
PSQI_DayStayAwake	0.1018 (0.404)	0.1079 (0.152)	0.09728 (0.592)
PSQI_GetUpTime	0.1059 (0.48)	0.06962 (0.514)	0.04939 (0.262)
PSQI_Latency30Min	0.05383 (0.43)	0.05212 (0.832)	0.1181 (0.186)
PSQI_Min2Asleep	0.09926 (0.348)	0.02102 (0.888)	0.2109 (0.198)
PSQI_Other	0.1028 (0.61)	0.01898 (0.786)	0.01286 (0.69)
PSQI_Pain	0.1111 (0.21)	0.07877 (0.2)	0.025 (0.704)
PSQI_Quality	0.08659 (0.356)	0.06978 (0.782)	0.0131 (0.206)
PSQI_Score	0.07902 (0.08)	0.03444 (0.938)	0.03514 (0.304)
PSQI_SleepMeds	0 (1)	0 (1)	0 (1)
PSQI_Snore	0.1749 (0.248)	0.1039 (0.174)	0.0701 (p < 0.00017)
PSQI_TooCold	0.2185 (0.032)	0.01062 (0.766)	0.08499 (0.19)
PSQI_TooHot	0.3561 (p < 0.00017)	0.04235 (0.976)	0.04901 (0.84)
PSQI_WakeUp	0.04965 (0.144)	0.08253 (0.556)	0.03591 (0.358)
Race	0.1146 (0.282)	0.1458 (0.06)	0.1927 (0.266)
ReadEng_AgeAdj	0.04479 (0.352)	0.1743 (0.024)	0.02622 (0.718)
ReadEng_Unadj	0.04012 (0.48)	0.2259 (p < 0.00017)	0.04562 (0.68)
Relational_Task_Acc	0.1737 (0.002)	0.1043 (0.396)	0.02819 (0.286)
Relational_Task_Match_Acc	0.2333 (p < 0.00017)	0.04591 (0.84)	0.04643 (0.234)
Relational_Task_Match_Median_RT	0.3698 (p < 0.00017)	0.0653 (0.638)	0.1623 (0.22)

Relational_Task_Median_RT	0.3079 (0.088)	0.1082 (0.166)	0.1958 (0.236)
Relational_Task_Rel_Acc	0.08091 (0.136)	0.1026 (0.352)	0.03719 (0.54)
Relational_Task_Rel_Median_RT	0.2196 (0.362)	0.06366 (0.084)	0.1379 (0.36)
Sadness_Unadj	0.02199 (0.106)	0.07534 (0.214)	0.03247 (0.916)
SCPT_FN	0.1376 (0.556)	0.01614 (0.822)	0.08906 (0.256)
SCPT_FP	0.1617 (0.122)	0.1681 (0.03)	0.1443 (0.582)
SCPT_LRNR	0.03238 (0.188)	0.1214 (0.04)	0.04191 (0.474)
SCPT_SEN	0.1016 (0.688)	0.009468 (0.856)	0.08057 (0.264)
SCPT_SPEC	0.1293 (0.202)	0.1812 (0.04)	0.146 (0.624)
SCPT_TN	0.1689 (0.11)	0.2031 (0.024)	0.1528 (0.598)
SCPT_TPRT	0.1118 (0.232)	0.01407 (0.392)	0.06948 (0.646)
SCPT_TP	0.1133 (0.61)	0.01999 (0.788)	0.08291 (0.258)
SelfEff_Unadj	0.08951 (0.27)	0.158 (0.042)	0.01547 (0.974)
Social_Task_Perc_Random	0.06835 (0.286)	0.09641 (0.994)	0.0923 (0.202)
Social_Task_Perc_TOM	0.005764 (0.74)	0.06659 (0.45)	0.1161 (p < 0.00017)
Social_Task_Perc_Unsure	0.1057 (0.468)	0.1706 (0.966)	0.09789 (0.178)
Social_Task_Random_Perc_Random	0.09597 (0.186)	0.0867 (1)	0.1465 (0.124)
Social_Task_Random_Perc_TOM	0.03835 (0.5)	0.03479 (0.566)	0.2414 (p < 0.00017)
Social_Task_Random_Perc_Unsure	0.1075 (0.4)	0.2142 (0.958)	0.0605 (0.292)
Social_Task_TOM_Median_RT_TOM	0.1293 (0.438)	0.0837 (0.528)	0.03088 (0.822)
Social_Task_TOM_Perc_Random	0.02208 (0.476)	0.03963 (0.088)	0.01642 (p < 0.00017)
Social_Task_TOM_Perc_TOM	0.07442 (0.614)	0.01283 (0.718)	0.08136 (p < 0.00017)
Social_Task_TOM_Perc_Unsure	0.06448 (0.374)	0.01668 (0.65)	0.2281 (p < 0.00017)
SSAGA_Alc_D4_Dp_Sx	0.05184 (0.686)	0.04681 (0.27)	0.02576 (0.302)
SSAGA_BMICatHeaviest	0.04338 (0.018)	0.1344 (0.12)	0.1413 (0.546)
SSAGA_BMICat	0.06384 (0.022)	0.1546 (0.004)	0.1016 (0.646)
SSAGA_ChildhoodConduct	0.1235 (0.518)	0.01974 (0.848)	0.2281 (0.288)
SSAGA_Depressive_Sx	0.03352 (0.658)	0.01573 (0.556)	0.05657 (0.48)

SSAGA_Educ	0.2301 (0.024)	0.2999 (p < 0.00017)	0.09343 (0.126)
SSAGA_Income	0.0789 (0.076)	0.2631 (0.044)	0.04327 (0.526)
SSAGA_Mj_Times_Used	0.06651 (0.29)	0.1301 (0.448)	0.03977 (0.682)
SSAGA_TB_Smoking_History	0.07138 (0.446)	0.04431 (0.19)	0.09332 (0.714)
SSAGA_Times_Used_Hallucinogens	0.09134 (0.056)	0.1373 (0.08)	0.1677 (0.674)
SSAGA_Times_Used_Illicits	0.05066 (0.116)	0.1558 (0.112)	0.1187 (0.672)
Strength_AgeAdj	0.1657 (0.188)	0.198 (0.202)	0.2496 (0.46)
Strength_Unadj	0.1368 (0.172)	0.2139 (0.156)	0.2255 (0.478)
Taste_AgeAdj	0.01955 (0.262)	0.1974 (0.014)	0.09079 (0.864)
Taste_Unadj	0.01074 (0.332)	0.1867 (0.046)	0.06652 (0.858)
Times_Used_Any_Tobacco_Today	0.06815 (0.686)	0.03991 (0.24)	0.1048 (0.84)
Total_Any_Tobacco_7days	0.1395 (0.168)	0.06043 (0.558)	0.1077 (0.664)
Total_Chew_7days	0.004529 (0.148)	0.001132 (0.004)	0.0334 (p < 0.00017)
Total_Cigarettes_7days	0.1035 (0.356)	0.03857 (0.51)	0.08443 (0.706)
Total_Drinks_7days	0.0534 (0.402)	0.1445 (0.188)	0.01657 (0.836)
VSPLOT_CRTE	0.06945 (0.24)	0.05832 (0.482)	0.01697 (0.358)
VSPLOT_OFF	0.1958 (0.024)	0.1608 (0.09)	0.09531 (0.392)
VSPLOT_TC	0.2858 (p < 0.00017)	0.1046 (0.356)	0.0548 (0.628)
Weight	0.1347 (0.014)	0.1248 (0.256)	0.2449 (0.826)
WM_Task_Obk_Acc	0.3055 (0.036)	0.06605 (0.888)	0.1381 (0.676)
WM_Task_Obk_Body_Acc	0.2951 (0.018)	0.06186 (0.928)	0.07556 (0.646)
WM_Task_Obk_Body_Acc_Nontarget	0.217 (0.024)	0.07672 (0.962)	0.04585 (0.502)
WM_Task_Obk_Body_Acc_Target	0.2345 (0.084)	0.04232 (0.95)	0.1085 (0.67)
WM_Task_Obk_Body_Median_RT	0.1501 (0.262)	0.08453 (0.222)	0.1793 (0.114)
WM_Task_Obk_Body_Median_RT_Non target	0.1217 (0.414)	0.1026 (0.132)	0.1571 (0.16)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.1269 (0.136)	0.2247 (0.028)	0.0833 (0.474)
WM_Task_Obk_Face_ACC_Nontarget	0.255 (0.004)	0.1661 (0.402)	0.1046 (0.14)

WM_Task_Obk_Face_Acc_Target	0.008471 (0.734)	0.2176 (0.02)	0.06364 (0.59)
WM_Task_Obk_Face_Median_RT	0.1115 (0.176)	0.07574 (0.356)	0.2157 (0.142)
WM_Task_Obk_Face_Median_RT_Nontarget	0.09674 (0.25)	0.08152 (0.256)	0.2226 (0.242)
WM_Task_Obk_Face_Median_RT_Target	0.2994 (0.016)	0.1639 (0.284)	0.1947 (0.19)
WM_Task_Obk_Median_RT	0.08836 (0.332)	0.06858 (0.35)	0.1215 (0.32)
WM_Task_Obk_Place_Acc	0.1436 (0.376)	0.03369 (0.478)	0.09918 (0.388)
WM_Task_Obk_Place_Acc_Nontarget	0.09983 (0.396)	0.03487 (0.584)	0.07737 (0.272)
WM_Task_Obk_Place_Acc_Target	0.1166 (0.716)	0.03227 (0.386)	0.08055 (0.492)
WM_Task_Obk_Place_Median_RT	0.06537 (0.73)	0.01645 (0.688)	0.05144 (0.59)
WM_Task_Obk_Place_Median_RT_Nontarget	0.04756 (0.79)	0.01138 (0.674)	0.08273 (0.38)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.07241 (0.034)	0.08627 (0.768)	0.124 (0.236)
WM_Task_Obk_Tool_Acc_Nontarget	0.01767 (0.392)	0.1425 (0.34)	0.1176 (0.284)
WM_Task_Obk_Tool_Acc_Target	0.1052 (0.036)	0.08011 (0.762)	0.08001 (0.386)
WM_Task_Obk_Tool_Median_RT	0.1496 (0.056)	0.04478 (0.43)	0.07076 (0.328)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.09909 (0.302)	0.04849 (0.358)	0.08711 (0.406)
WM_Task_Obk_Tool_Median_RT_Target	0.05717 (0.29)	0.125 (0.066)	0.03733 (0.814)
WM_Task_2bk_Acc	0.08124 (0.19)	0.1129 (0.236)	0.06143 (0.978)
WM_Task_2bk_Body_Acc	0.1621 (0.036)	0.04529 (0.3)	0.04225 (0.856)
WM_Task_2bk_Body_Acc_Nontarget	0.1041 (0.314)	0.02055 (0.512)	0.008975 (0.948)
WM_Task_2bk_Body_Acc_Target	0.07621 (0.114)	0.08806 (0.584)	0.03988 (0.962)
WM_Task_2bk_Body_Median_RT	0.03557 (0.3)	0.03682 (0.56)	0.1782 (0.346)
WM_Task_2bk_Body_Median_RT_Nontarget	0.03269 (0.252)	0.09969 (0.272)	0.1945 (0.27)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.05877 (0.368)	0.03633 (0.864)	0.09974 (0.62)

WM_Task_2bk_Face_Acc_Nontarget	0.06053 (0.262)	0.02806 (0.972)	0.1502 (0.302)
WM_Task_2bk_Face_Acc_Target	0.2557 (0.006)	0.062 (0.274)	0.1327 (0.402)
WM_Task_2bk_Face_Median_RT	0.03259 (0.33)	0.04339 (0.17)	0.263 (0.048)
WM_Task_2bk_Face_Median_RT_Nontarget	0.03252 (0.408)	0.06506 (0.092)	0.1938 (0.08)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.05605 (0.466)	0.03222 (0.61)	0.2791 (0.122)
WM_Task_2bk_Place_Acc	0.1269 (0.204)	0.1135 (0.044)	0.05263 (1)
WM_Task_2bk_Place_Acc_Nontarget	0.05515 (0.494)	0.1559 (0.014)	0.08337 (0.898)
WM_Task_2bk_Place_Acc_Target	0.1515 (0.388)	0.02481 (0.35)	0.1246 (0.69)
WM_Task_2bk_Place_Median_RT	0.1192 (0.076)	0.04162 (0.352)	0.1652 (0.23)
WM_Task_2bk_Place_Median_RT_Nontarget	0.164 (0.056)	0.03592 (0.362)	0.2153 (0.12)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.06258 (0.524)	0.126 (0.284)	0.0622 (0.994)
WM_Task_2bk_Tool_Acc_Nontarget	0.1331 (0.164)	0.1158 (0.29)	0.1117 (0.994)
WM_Task_2bk_Tool_Acc_Target	0.02336 (0.616)	0.05215 (0.956)	0.005252 (0.976)
WM_Task_2bk_Tool_Median_RT	0.05192 (0.828)	0.09972 (0.37)	0.2397 (0.24)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.06184 (0.792)	0.07401 (0.766)	0.2168 (0.238)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.2682 (0.004)	0.1 (0.88)	0.1498 (0.906)
WM_Task_Median_RT	0.08562 (0.366)	0.02428 (0.66)	0.2109 (0.224)
ZygotySR	0.06764 (0.19)	0.06238 (0.624)	0.03057 (0.796)

1200 volumes | 100 subjects

1200 volumes   100 subjects			
	allrest	allscans	alltask
Age_in_Yrs	0.09995 (0.07)	0.09063 (0.062)	0.08512 (0.19)
AngAffect_Unadj	0.07135 (0.132)	0.0474 (0.234)	0.06712 (0.178)
AngAggr_Unadj	0.02851 (0.284)	0.1073 (0.532)	0.1081 (0.47)
AngHostil_Unadj	0.01802 (0.77)	0.04334 (0.592)	0.04473 (0.66)
ASR_Aggr_Raw	0.01768 (0.712)	0.04379 (0.646)	0.06219 (0.502)
ASR_Aggr_T	0.01845 (0.736)	0.04607 (0.586)	0.06066 (0.498)
ASR_Anxd_Pct	0.03594 (0.604)	0.04252 (0.288)	0.02685 (0.294)
ASR_Anxd_Raw	0.04635 (0.712)	0.01889 (0.392)	0.0359 (0.094)
ASR_Attn_Raw	0.07697 (0.026)	0.03625 (0.13)	0.06181 (0.066)
ASR_Attn_T	0.119 (0.02)	0.06667 (0.174)	0.09481 (0.1)
ASR_Crit_Raw	0.0264 (0.81)	0.009234 (0.282)	0.009314 (0.176)
ASR_Extn_Raw	0.05745 (0.48)	0.06419 (0.352)	0.05227 (0.404)
ASR_Extn_T	0.04927 (0.614)	0.07682 (0.366)	0.06624 (0.374)
ASR_Intn_Raw	0.08013 (0.404)	0.05701 (0.136)	0.04243 (0.122)
ASR_Intn_T	0.07346 (0.248)	0.01997 (0.132)	0.03795 (0.056)
ASR_Intr_Raw	0.1299 (0.068)	0.1366 (0.126)	0.1466 (0.082)
ASR_Intr_T	0.09084 (0.24)	0.1135 (0.234)	0.09954 (0.336)
ASR_Oth_Raw	0.1191 (0.162)	0.02115 (0.08)	0.02903 (0.04)
ASR_Rule_Raw	0.03646 (0.742)	0.1562 (0.098)	0.1719 (0.064)
ASR_Rule_T	0.01646 (0.842)	0.07537 (0.344)	0.07229 (0.322)
ASR_Soma_Raw	0.1597 (0.002)	0.1295 (0.028)	0.0912 (0.142)
ASR_Soma_T	0.1397 (0.034)	0.1289 (0.032)	0.06175 (0.364)
ASR_TAO_Sum	0.1325 (0.028)	0.04114 (0.054)	0.04614 (0.018)
ASR_Thot_Raw	0.06184 (0.256)	0.05183 (0.046)	0.0534 (0.04)

ASR_Thot_T	0.04087 (0.424)	0.05505 (0.146)	0.0526 (0.122)
ASR_Totp_Raw	0.1258 (0.242)	0.0466 (0.128)	0.0346 (0.098)
ASR_Totp_T	0.1237 (0.222)	0.03303 (0.12)	0.04448 (0.064)
ASR_Witd_Raw	0.02816 (0.436)	0.02191 (0.162)	0.0193 (0.194)
ASR_Witd_T	0.01582 (0.54)	0.01971 (0.202)	0.0175 (0.21)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0.03267 (0.486)	0.02384 (0.516)
Avg_Weekday_CheW_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.002252 (0.014)	0.02459 (0.622)	0.02771 (0.614)
Avg_Weekday_Drinks_7days	0.03453 (0.498)	0.09497 (0.428)	0.116 (0.306)
Avg_Weekend_Any_Tobacco_7days	0.00267 (0.01)	0.02939 (0.608)	0.04235 (0.516)
Avg_Weekend_CheW_7days	0 (1)	0 (1)	0.003069 (p < 0.00017)
Avg_Weekend_Cigarettes_7days	0 (1)	0.02349 (0.696)	0.02294 (0.674)
Avg_Weekend_Drinks_7days	0.07575 (0.22)	0.05749 (0.456)	0.06386 (0.43)
BMI	0.07509 (0.136)	0.3476 (p < 0.00017)	0.3226 (p < 0.00017)
BPDiastolic	0.009798 (0.222)	0.09867 (0.008)	0.09733 (0.014)
BPSystolic	0.02524 (0.262)	0.3138 (p < 0.00017)	0.3364 (p < 0.00017)
CardSort_AgeAdj	0.1139 (0.788)	0.01667 (0.558)	0.0179 (0.54)
CardSort_Unadj	0.2012 (0.452)	0.04735 (0.242)	0.02986 (0.304)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.1183 (0.098)	0.1936 (p < 0.00017)	0.1987 (p < 0.00017)
DDisc_AUC_40K	0.09453 (0.594)	0.08848 (0.148)	0.11 (0.104)
DDisc_SV_10yr_200	0.09892 (0.188)	0.09348 (0.004)	0.1127 (0.004)

DDisc_SV_10yr_40K	0.02812 (0.944)	0.05111 (0.66)	0.04983 (0.742)
DDisc_SV_1mo_200	0.02564 (0.434)	0.1899 (0.004)	0.202 (0.012)
DDisc_SV_1mo_40K	0.08531 (0.206)	0.03363 (0.638)	0.04292 (0.558)
DDisc_SV_1yr_200	0.1075 (0.066)	0.2873 (p < 0.00017)	0.281 (p < 0.00017)
DDisc_SV_1yr_40K	0.08536 (0.392)	0.1129 (0.216)	0.1663 (0.11)
DDisc_SV_3yr_200	0.1096 (0.26)	0.1992 (p < 0.00017)	0.2443 (p < 0.00017)
DDisc_SV_3yr_40K	0.1073 (0.422)	0.1035 (0.03)	0.08969 (0.024)
DDisc_SV_5yr_200	0.06958 (0.14)	0.07249 (0.05)	0.08478 (0.038)
DDisc_SV_5yr_40K	0.1261 (0.21)	0.1234 (0.038)	0.1074 (0.076)
DDisc_SV_6mo_200	0.08229 (0.14)	0.135 (0.008)	0.1751 (0.002)
DDisc_SV_6mo_40K	0.1757 (p < 0.00017)	0.1809 (p < 0.00017)	0.2102 (p < 0.00017)
Dexterity_AgeAdj	0.09555 (0.008)	0.1512 (0.01)	0.1502 (0.026)
Dexterity_Unadj	0.124 (p < 0.00017)	0.1928 (0.006)	0.165 (0.01)
DSM_Adh_Raw	0.09875 (0.062)	0.03379 (0.272)	0.04937 (0.204)
DSM_Adh_T	0.04866 (0.23)	0.0367 (0.414)	0.04895 (0.29)
DSM_Antis_Raw	0.02897 (0.588)	0.1193 (0.018)	0.1087 (0.018)
DSM_Antis_T	0.001915 (0.664)	0.04436 (0.272)	0.06886 (0.154)
DSM_Anxi_Raw	0.04557 (0.692)	0.1127 (0.012)	0.1181 (0.008)
DSM_Anxi_T	0.01878 (0.812)	0.03028 (0.298)	0.04463 (0.098)
DSM_Avoid_Raw	0.02823 (0.292)	0.02411 (0.382)	0.0415 (0.306)
DSM_Avoid_T	0.03296 (0.298)	0.04271 (0.27)	0.0452 (0.212)
DSM_Depr_Raw	0.04843 (0.236)	0.05408 (0.222)	0.05693 (0.18)
DSM_Depr_T	0.04337 (0.276)	0.05115 (0.232)	0.05995 (0.236)
DSM_Hype_Raw	0.1106 (0.242)	0.01962 (0.768)	0.02201 (0.738)
DSM_Inat_Raw	0.01715 (0.256)	0.03259 (0.054)	0.04413 (0.052)
DSM_Somp_Raw	0.1078 (0.07)	0.09594 (0.332)	0.06315 (0.566)
DSM_Somp_T	0.1191 (0.076)	0.09645 (0.332)	0.07684 (0.552)



Emotion_Task_Acc	0.004081 (0.35)	0.01492 (0.942)	0.03105 (0.93)
Emotion_Task_Face_Acc	0.02837 (0.796)	0.04471 (0.766)	0.05895 (0.52)
Emotion_Task_Face_Median_RT	0.09213 (0.13)	0.1006 (0.08)	0.09912 (0.088)
Emotion_Task_Median_RT	0.06352 (0.314)	0.09464 (0.072)	0.1104 (0.05)
Emotion_Task_Shape_Acc	0.00394 (0.65)	0.1451 (0.214)	0.1651 (0.162)
Emotion_Task_Shape_Median_RT	0.05165 (0.602)	0.08078 (0.094)	0.08338 (0.084)
EmotSupp_Unadj	0.04273 (0.408)	0.1124 (0.018)	0.09467 (0.038)
Endurance_AgeAdj	0.03532 (0.312)	0.1044 (0.004)	0.08384 (0.006)
Endurance_Unadj	0.02073 (0.414)	0.1139 (p < 0.00017)	0.1337 (0.002)
ER40ANG	0.03337 (0.362)	0.0173 (0.514)	0.01248 (0.532)
ER40FEAR	0.06274 (0.04)	0.01805 (0.732)	0.01829 (0.834)
ER40NOE	0.1006 (0.336)	0.02442 (0.934)	0.02731 (0.91)
ER40SAD	0.01706 (0.95)	0.02204 (0.79)	0.02164 (0.69)
ER40_CRT	0.04527 (0.638)	0.00926 (0.816)	0.01806 (0.772)
ER40_CR	0.1597 (0.004)	0.05587 (0.944)	0.03145 (0.966)
EVA_Denom	0.1827 (0.084)	0.0852 (0.132)	0.07264 (0.196)
FearAffect_Unadj	0.07375 (0.292)	0.05655 (0.212)	0.03596 (0.292)
FearSomat_Unadj	0.2089 (0.006)	0.09582 (0.41)	0.09321 (0.384)
Flanker_AgeAdj	0.1442 (0.196)	0.09111 (0.198)	0.09506 (0.15)
Flanker_Unadj	0.1172 (0.162)	0.1135 (0.282)	0.1213 (0.21)
Friendship_Unadj	0.05376 (0.692)	0.06896 (0.114)	0.08612 (0.06)
GaitSpeed_Comp	0.0503 (0.216)	0.04471 (0.266)	0.06044 (0.194)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.07106 (0.152)	0.1528 (0.042)	0.1343 (0.072)
Gambling_Task_Perc_Larger	0.02451 (0.468)	0.1422 (0.12)	0.1507 (0.116)
Gambling_Task_Perc_Smaller	0.01284 (0.576)	0.1297 (0.168)	0.1627 (0.09)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)

Gambling_Task_Punish_Median_RT_Smaller	0.05175 (0.406)	0.1173 (0.194)	0.1262 (0.172)
Gambling_Task_Punish_Perc_Larger	0.1264 (0.06)	0.138 (0.414)	0.1534 (0.268)
Gambling_Task_Punish_Perc_Smaller	0.1136 (0.084)	0.1865 (0.196)	0.148 (0.29)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0.07918 (0.06)	0.1347 (0.01)	0.1101 (0.028)
Gambling_Task_Reward_Perc_Larger	0.03393 (0.756)	0.01135 (0.768)	0.01552 (0.64)
Gambling_Task_Reward_Perc_Smaller	0.03627 (0.778)	0.004926 (0.836)	0.01559 (0.692)
Handedness	0.02357 (0.856)	0.06897 (0.006)	0.0965 (0.002)
Height	0.1976 (p < 0.00017)	0.4218 (p < 0.00017)	0.4182 (p < 0.00017)
InstruSupp_Unadj	0.01001 (0.868)	0.08494 (0.294)	0.09604 (0.214)
IWRD_RTC	0.02763 (0.58)	0.02776 (0.46)	0.0347 (0.37)
IWRD_TOT	0.04225 (0.214)	0.01519 (0.182)	0.01948 (0.268)
Language_Task_Acc	0.04043 (0.572)	0.2373 (0.078)	0.2801 (0.044)
Language_Task_Math_Acc	0.04727 (0.49)	0.1804 (0.046)	0.2036 (0.058)
Language_Task_Math_Avg_Difficulty_Level	0.2589 (0.004)	0.157 (0.322)	0.1332 (0.456)
Language_Task_Math_Median_RT	0.03637 (0.236)	0.004599 (0.742)	0.003521 (0.744)
Language_Task_Median_RT	0.1364 (0.006)	0.02008 (0.706)	0.008479 (0.8)
Language_Task_Story_Acc	0.1218 (0.054)	0.1977 (0.078)	0.2178 (0.07)
Language_Task_Story_Avg_Difficulty_Level	0.07647 (0.856)	0.2707 (0.036)	0.2913 (0.032)
Language_Task_Story_Median_RT	0.2391 (p < 0.00017)	0.1031 (0.028)	0.02201 (0.418)
LifeSatisf_Unadj	0.02455 (0.78)	0.03561 (0.724)	0.03324 (0.692)
ListSort_AgeAdj	0.2783 (p < 0.00017)	0.1415 (0.088)	0.09533 (0.166)
ListSort_Unadj	0.2991 (p < 0.00017)	0.1074 (0.276)	0.1125 (0.238)
Loneliness_Unadj	0.00168 (1)	0.14 (0.204)	0.1649 (0.032)
Mars_Errs	0.2541 (p < 0.00017)	0.1642 (0.184)	0.0824 (0.614)
Mars_Final	0.06467 (0.064)	0.1464 (0.028)	0.132 (0.076)

Mars_Log_Score	0.08413 (0.028)	0.2284 (0.012)	0.1994 (0.056)
MeanPurp_Unadj	0.05543 (0.69)	0.08245 (0.308)	0.07724 (0.314)
MMSE_Score	0.02587 (0.55)	0.07297 (0.39)	0.07342 (0.466)
Noise_Comp	0.02627 (0.468)	0.008474 (0.544)	0.007038 (0.648)
Num_Days_Drank_7days	0.03802 (0.868)	0.08301 (0.392)	0.09393 (0.26)
Num_Days_Used_Any_Tobacco_7days	0.02802 (0.52)	0.07369 (0.176)	0.07543 (0.108)
Odor_AgeAdj	0.02034 (0.278)	0.07733 (0.072)	0.0826 (0.028)
Odor_Unadj	0.03635 (0.18)	0.1056 (0.006)	0.1081 (0.004)
PainIntens_RawScore	0.02673 (0.208)	0.1579 (0.038)	0.1725 (0.036)
PainInterf_Tscore	0.09352 (0.142)	0.1788 (p < 0.00017)	0.1672 (p < 0.00017)
PercHostil_Unadj	0.04308 (0.664)	0.06881 (0.682)	0.1048 (0.454)
PercReject_Unadj	0.01255 (0.692)	0.05002 (0.636)	0.04844 (0.576)
PercStress_Unadj	0.03936 (0.862)	0.0437 (0.092)	0.07013 (0.026)
PicSeq_AgeAdj	0.1675 (0.064)	0.04575 (0.792)	0.04112 (0.85)
PicSeq_Unadj	0.1601 (0.042)	0.04163 (0.714)	0.02897 (0.822)
PicVocab_AgeAdj	0.0867 (0.154)	0.2417 (p < 0.00017)	0.2625 (p < 0.00017)
PicVocab_Unadj	0.0923 (0.17)	0.2414 (0.002)	0.1938 (0.012)
PMAT24_A_CR	0.1107 (0.286)	0.1943 (0.176)	0.1716 (0.278)
PMAT24_A_RTCR	0.0826 (0.552)	0.1019 (0.168)	0.08564 (0.238)
PMAT24_A_SI	0.1059 (0.292)	0.1513 (0.246)	0.1373 (0.39)
PosAffect_Unadj	0.04429 (0.794)	0.02453 (0.824)	0.01402 (0.822)
ProcSpeed_AgeAdj	0.03343 (0.792)	0.05911 (0.914)	0.06058 (0.966)
ProcSpeed_Unadj	0.03725 (0.782)	0.06231 (0.958)	0.09395 (0.93)
PSQI_AmtSleep	0.1504 (0.018)	0.0758 (0.654)	0.06927 (0.764)
PSQI_BadDream	0.09785 (0.514)	0.01656 (0.51)	0.01581 (0.532)
PSQI_Bathroom	0.09414 (0.074)	0.08197 (0.356)	0.08147 (0.274)
PSQI_BedPtnrRmate	0.03493 (0.654)	0.2002 (0.598)	0.2166 (0.43)

PSQI_BedTime	0.1133 (0.496)	0.04355 (0.972)	0.02278 (0.988)
PSQI_Breathe	0 (1)	0.02021 (0.12)	0.01732 (0.128)
PSQI_Comp1	0.1119 (0.01)	0.05879 (0.12)	0.04682 (0.134)
PSQI_Comp2	0.06055 (0.958)	0.0914 (0.496)	0.0931 (0.372)
PSQI_Comp3	0.07734 (0.06)	0.0951 (0.53)	0.1443 (0.368)
PSQI_Comp4	0.1776 (0.69)	0.04246 (0.946)	0.03948 (0.93)
PSQI_Comp5	0.1031 (0.416)	0.07522 (0.418)	0.0573 (0.408)
PSQI_Comp6	0.004598 (0.016)	0.08017 (0.07)	0.05869 (0.132)
PSQI_Comp7	0.04102 (0.254)	0.03341 (0.34)	0.01674 (0.38)
PSQI_DayEnthusiasm	0.1137 (0.174)	0.01527 (0.324)	0.01716 (0.322)
PSQI_DayStayAwake	0.003202 (0.042)	0.1028 (0.154)	0.09643 (0.196)
PSQI_GetUpTime	0.1239 (0.002)	0.03348 (0.95)	0.0249 (0.95)
PSQI_Latency30Min	0.04289 (0.852)	0.06403 (0.602)	0.07722 (0.546)
PSQI_Min2Asleep	0.09463 (0.942)	0.1746 (0.656)	0.1679 (0.544)
PSQI_Other	0.1156 (0.006)	0.007432 (0.482)	0.01058 (0.452)
PSQI_Pain	0.1029 (0.092)	0.2893 (0.002)	0.2584 (0.002)
PSQI_Quality	0.1234 (0.008)	0.05824 (0.122)	0.03738 (0.2)
PSQI_Score	0.07113 (0.678)	0.04682 (0.446)	0.03425 (0.542)
PSQI_SleepMeds	0.01376 (0.008)	0.07751 (0.064)	0.09094 (0.094)
PSQI_Snore	0.01847 (0.118)	0.2068 (0.398)	0.2273 (0.374)
PSQI_TooCold	0.04508 (0.626)	0.09821 (0.394)	0.08979 (0.462)
PSQI_TooHot	0.06624 (0.462)	0.05229 (0.958)	0.05294 (0.956)
PSQI_WakeUp	0.05556 (0.152)	0.09041 (0.086)	0.09198 (0.124)
Race	0.03711 (0.07)	0.1562 (0.052)	0.1581 (0.008)
ReadEng_AgeAdj	0.07235 (0.556)	0.2046 (0.018)	0.2224 (0.018)
ReadEng_Unadj	0.06885 (0.64)	0.2036 (0.022)	0.208 (0.05)
Relational_Task_Acc	0.01473 (0.81)	0.05328 (0.446)	0.07697 (0.324)

Relational_Task_Match_Acc	0.04052 (0.636)	0.1489 (0.422)	0.1467 (0.358)
Relational_Task_Match_Median_RT	0.06645 (0.08)	0.151 (0.004)	0.1471 (0.014)
Relational_Task_Median_RT	0.1216 (0.008)	0.1597 (0.004)	0.1642 (0.004)
Relational_Task_Rel_Acc	0.005146 (0.628)	0.01505 (0.35)	0.008299 (0.448)
Relational_Task_Rel_Median_RT	0.1145 (0.012)	0.168 (p < 0.00017)	0.1594 (p < 0.00017)
Sadness_Unadj	0.04981 (0.96)	0.08608 (0.122)	0.1025 (0.014)
SCPT_FN	0.08842 (0.134)	0.02749 (0.438)	0.01587 (0.596)
SCPT_FP	0.01734 (0.436)	0.09164 (0.238)	0.1087 (0.33)
SCPT_LRNR	0.008053 (0.564)	0.02496 (0.442)	0.02876 (0.454)
SCPT_SEN	0.1066 (0.084)	0.02366 (0.408)	0.01777 (0.552)
SCPT_SPEC	0.0302 (0.34)	0.08722 (0.276)	0.1021 (0.344)
SCPT_TN	0.02327 (0.432)	0.1028 (0.222)	0.1063 (0.3)
SCPT_TPRT	0.01078 (0.444)	0.001199 (0.376)	0.004585 (0.346)
SCPT_TP	0.09887 (0.11)	0.02386 (0.444)	0.02083 (0.53)
SelfEff_Unadj	0.08923 (0.256)	0.07882 (0.148)	0.06737 (0.132)
Social_Task_Perc_Random	0.06449 (0.114)	0.06308 (0.688)	0.0599 (0.8)
Social_Task_Perc_TOM	0.06778 (0.11)	0.03977 (0.734)	0.04779 (0.744)
Social_Task_Perc_Unsure	0.09787 (0.048)	0.1924 (0.006)	0.2089 (0.002)
Social_Task_Random_Perc_Random	0.05966 (0.216)	0.06042 (0.464)	0.0813 (0.48)
Social_Task_Random_Perc_TOM	0.00433 (0.002)	0.06762 (0.218)	0.0856 (0.06)
Social_Task_Random_Perc_Unsure	0.05576 (0.26)	0.1078 (0.076)	0.1023 (0.094)
Social_Task_TOM_Median_RT_TOM	0.04127 (0.322)	0.007635 (0.466)	0.009514 (0.568)
Social_Task_TOM_Perc_Random	0.003287 (0.128)	0.0002132 (0.618)	0.003103 (0.692)
Social_Task_TOM_Perc_TOM	0.05346 (0.168)	0.01148 (0.56)	0.02233 (0.548)
Social_Task_TOM_Perc_Unsure	0 (1)	0.07447 (0.106)	0.08114 (0.142)
SSAGA_Alc_D4_Dp_Sx	0.04842 (0.602)	0.2109 (0.334)	0.1863 (0.372)

SSAGA_BMICatHeaviest	0.08501 (0.398)	0.2259 (0.004)	0.2223 (0.002)
SSAGA_BMICat	0.1032 (0.148)	0.3747 (p < 0.00017)	0.3992 (p < 0.00017)
SSAGA_ChildhoodConduct	0.05346 (0.272)	0.07871 (0.382)	0.09462 (0.366)
SSAGA_Depressive_Sx	0.07763 (0.58)	0.04649 (0.236)	0.02508 (0.266)
SSAGA_Educ	0.08012 (0.668)	0.3008 (0.054)	0.2869 (0.036)
SSAGA_Income	0.01898 (0.61)	0.07811 (0.146)	0.1281 (0.04)
SSAGA_Mj_Times_Used	0.06742 (0.49)	0.03379 (0.224)	0.02756 (0.128)
SSAGA_TB_Smoking_History	0.05221 (0.608)	0.0949 (0.008)	0.09295 (0.004)
SSAGA_Times_Used_Hallucinogens	0 (1)	0.1084 (0.012)	0.139 (0.006)
SSAGA_Times_Used_Illicits	0.0815 (0.138)	0.03322 (0.19)	0.02229 (0.194)
Strength_AgeAdj	0.2081 (0.002)	0.4227 (p < 0.00017)	0.4112 (p < 0.00017)
Strength_Unadj	0.2554 (p < 0.00017)	0.412 (p < 0.00017)	0.4064 (p < 0.00017)
Taste_AgeAdj	0.02896 (0.314)	0.1103 (0.06)	0.1329 (0.036)
Taste_Unadj	0.01453 (0.392)	0.1444 (0.026)	0.1471 (0.02)
Times_Used_Any_Tobacco_Today	0 (1)	0.021 (0.524)	0.01915 (0.414)
Total_Any_Tobacco_7days	0.00328 (0.018)	0.04446 (0.424)	0.04745 (0.4)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0.03629 (0.514)	0.02117 (0.59)
Total_Drinks_7days	0.03361 (0.79)	0.07076 (0.39)	0.08455 (0.272)
VSPLOT_CRTE	0.03093 (0.788)	0.01896 (0.582)	0.03148 (0.476)
VSPLOT_OFF	0.2102 (p < 0.00017)	0.1004 (0.246)	0.1314 (0.156)
VSPLOT_TC	0.1061 (0.012)	0.02316 (0.668)	0.03976 (0.656)
Weight	0.1745 (p < 0.00017)	0.4882 (p < 0.00017)	0.4806 (p < 0.00017)
WM_Task_Obk_Acc	0.03574 (0.482)	0.06883 (0.214)	0.06908 (0.232)
WM_Task_Obk_Body_Acc	0.04996 (0.196)	0.03587 (0.626)	0.02561 (0.7)
WM_Task_Obk_Body_Acc_Nontarget	0.04348 (0.37)	0.02455 (0.868)	0.03426 (0.77)
WM_Task_Obk_Body_Acc_Target	0.04152 (0.314)	0.05313 (0.432)	0.04109 (0.492)

WM_Task_Obk_Body_Median_RT	0.03984 (0.286)	0.06853 (0.54)	0.08091 (0.59)
WM_Task_Obk_Body_Median_RT_Nontarget	0.03177 (0.306)	0.07214 (0.422)	0.07746 (0.508)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.03081 (0.472)	0.05818 (0.11)	0.08953 (0.052)
WM_Task_Obk_Face_ACC_Nontarget	0.02337 (0.552)	0.08273 (0.052)	0.1152 (0.028)
WM_Task_Obk_Face_Acc_Target	0.0587 (0.284)	0.02834 (0.116)	0.0397 (0.134)
WM_Task_Obk_Face_Median_RT	0.02714 (0.676)	0.02284 (0.596)	0.02795 (0.646)
WM_Task_Obk_Face_Median_RT_Nontarget	0.02389 (0.766)	0.0209 (0.756)	0.02662 (0.822)
WM_Task_Obk_Face_Median_RT_Target	0.02178 (0.826)	0.05023 (0.24)	0.04916 (0.198)
WM_Task_Obk_Median_RT	0.01734 (0.726)	0.04035 (0.664)	0.03493 (0.682)
WM_Task_Obk_Place_Acc	0.07487 (0.302)	0.07051 (0.316)	0.09099 (0.24)
WM_Task_Obk_Place_Acc_Nontarget	0.05582 (0.222)	0.06984 (0.134)	0.1216 (0.044)
WM_Task_Obk_Place_Acc_Target	0.01742 (0.788)	0.03956 (0.738)	0.04677 (0.702)
WM_Task_Obk_Place_Median_RT	0.03914 (0.732)	0.02249 (0.604)	0.02937 (0.488)
WM_Task_Obk_Place_Median_RT_Nontarget	0.03618 (0.682)	0.04029 (0.482)	0.02579 (0.498)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.0795 (0.174)	0.05249 (0.494)	0.06241 (0.458)
WM_Task_Obk_Tool_Acc_Nontarget	0.04497 (0.364)	0.05103 (0.658)	0.06846 (0.598)
WM_Task_Obk_Tool_Acc_Target	0.1602 (0.004)	0.06818 (0.09)	0.07615 (0.076)
WM_Task_Obk_Tool_Median_RT	0.01552 (0.634)	0.08416 (0.626)	0.07865 (0.666)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.02807 (0.65)	0.05412 (0.76)	0.07298 (0.704)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.1002 (0.06)	0.285 (p < 0.00017)	0.3043 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.04491 (0.488)	0.06351 (0.18)	0.06581 (0.136)
WM_Task_2bk_Body_Acc_Nontarget	0.05035 (0.406)	0.0393 (0.216)	0.04736 (0.154)
WM_Task_2bk_Body_Acc_Target	0.1647 (0.018)	0.09661 (0.44)	0.08582 (0.538)

WM_Task_2bk_Body_Median_RT	0.02643 (0.926)	0.1553 (0.002)	0.1621 (0.004)
WM_Task_2bk_Body_Median_RT_Nontarget	0.02428 (0.92)	0.1541 (0.008)	0.1615 (0.016)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.07907 (0.206)	0.1897 (0.224)	0.1896 (0.254)
WM_Task_2bk_Face_Acc_Nontarget	0.05934 (0.33)	0.1403 (0.062)	0.1317 (0.118)
WM_Task_2bk_Face_Acc_Target	0.1871 (p < 0.00017)	0.1401 (0.032)	0.1149 (0.06)
WM_Task_2bk_Face_Median_RT	0.1199 (0.568)	0.153 (0.002)	0.1282 (0.032)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1135 (0.512)	0.1146 (0.022)	0.08856 (0.13)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1283 (0.596)	0.2467 (p < 0.00017)	0.2015 (0.02)
WM_Task_2bk_Place_Acc	0.03712 (0.502)	0.2202 (p < 0.00017)	0.2276 (p < 0.00017)
WM_Task_2bk_Place_Acc_Nontarget	0.009336 (0.55)	0.1917 (p < 0.00017)	0.2262 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.01393 (0.086)	0.03331 (0.258)	0.05159 (0.212)
WM_Task_2bk_Place_Median_RT	0.07476 (0.492)	0.1083 (0.144)	0.1027 (0.186)
WM_Task_2bk_Place_Median_RT_Nontarget	0.05316 (0.462)	0.1179 (0.158)	0.1083 (0.138)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.08794 (0.044)	0.1791 (0.002)	0.1828 (0.002)
WM_Task_2bk_Tool_Acc_Nontarget	0.04132 (0.182)	0.135 (0.006)	0.1408 (0.006)
WM_Task_2bk_Tool_Acc_Target	0.09135 (0.088)	0.1185 (0.018)	0.09454 (0.068)
WM_Task_2bk_Tool_Median_RT	0.06704 (0.718)	0.1178 (0.304)	0.1096 (0.382)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.06624 (0.616)	0.128 (0.282)	0.1135 (0.464)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1072 (0.016)	0.3083 (p < 0.00017)	0.2954 (p < 0.00017)
WM_Task_Median_RT	0.06846 (0.71)	0.138 (0.158)	0.1202 (0.3)
ZygotySR	0 (1)	0 (1)	0 (1)



1200 volumes   100 subjects			
	rfMRI_REST1	rfMRI_REST2	tfMRI_EMOTION
Age_in_Yrs	0.1032 (0.362)	0.0562 (0.042)	0.0682 (0.142)
AngAffect_Unadj	0.08867 (0.062)	0.05291 (0.3)	0.0321 (0.182)
AngAggr_Unadj	0.03175 (0.248)	0.01557 (0.336)	0.03557 (0.442)
AngHostil_Unadj	0.01644 (0.694)	0.01918 (0.8)	0.007589 (0.832)
ASR_Aggr_Raw	0.03639 (0.612)	0.01226 (0.62)	0.04138 (0.146)
ASR_Aggr_T	0.03261 (0.674)	0.009933 (0.65)	0.06439 (0.06)
ASR_Anxd_Pct	0.07006 (0.606)	0.05691 (0.536)	0.04077 (0.092)
ASR_Anxd_Raw	0.049 (0.794)	0.08081 (0.424)	0.0495 (0.07)
ASR_Attn_Raw	0.05616 (0.288)	0.07611 (0.1)	0.05334 (0.034)
ASR_Attn_T	0.09391 (0.284)	0.09398 (0.034)	0.04085 (0.15)
ASR_Crit_Raw	0.02021 (0.914)	0.03144 (0.756)	0.02598 (0.172)
ASR_Extn_Raw	0.09367 (0.71)	0.03795 (0.356)	0.05105 (0.048)
ASR_Extn_T	0.07041 (0.848)	0.02658 (0.372)	0.03971 (0.066)
ASR_Intn_Raw	0.07582 (0.41)	0.06652 (0.34)	0.04589 (0.058)
ASR_Intn_T	0.05852 (0.262)	0.07119 (0.194)	0.05215 (0.04)
ASR_Intr_Raw	0.1163 (0.328)	0.07075 (0.056)	0.1363 (0.008)
ASR_Intr_T	0.1208 (0.354)	0.03555 (0.222)	0.1054 (0.044)
ASR_Oth_Raw	0.09823 (0.118)	0.1017 (0.268)	0.01228 (0.182)
ASR_Rule_Raw	0.06934 (0.926)	0.05175 (0.436)	0.1254 (0.022)
ASR_Rule_T	0.03311 (0.962)	0.02064 (0.56)	0.09493 (0.108)
ASR_Soma_Raw	0.1148 (0.016)	0.1166 (0.198)	0.1008 (0.054)
ASR_Soma_T	0.1447 (0.02)	0.07218 (0.464)	0.126 (0.042)
ASR_TAO_Sum	0.0765 (0.208)	0.09704 (0.084)	0.03697 (0.09)

ASR_Thot_Raw	0.02469 (0.566)	0.06858 (0.166)	0.03589 (0.458)
ASR_Thot_T	0.02966 (0.676)	0.05843 (0.226)	0.03834 (0.51)
ASR_Totp_Raw	0.1248 (0.334)	0.09418 (0.188)	0.02514 (0.06)
ASR_Totp_T	0.1201 (0.366)	0.0722 (0.238)	0.01851 (0.068)
ASR_Witd_Raw	0.04303 (0.434)	0.05066 (0.352)	0.04153 (0.354)
ASR_Witd_T	0.03466 (0.448)	0.03221 (0.546)	0.03027 (0.27)
Avg_Weekday_Any_Tobacco_7days	0.0009709 (0.04)	0.006903 (0.06)	0.0996 (0.22)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.001356 (0.034)	0 (1)	0.104 (0.166)
Avg_Weekday_Drinks_7days	0.01808 (0.702)	0.05778 (0.56)	0.1679 (0.15)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0.00721 (0.03)	0.06394 (0.612)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0.005216 (0.038)	0.08539 (0.438)
Avg_Weekend_Drinks_7days	0.1131 (0.244)	0.03921 (0.18)	0.1903 (0.52)
BMI	0.07274 (0.22)	0.04748 (0.184)	0.1628 (0.006)
BPDiastolic	0.01693 (0.084)	0.01185 (0.526)	0.08049 (0.386)
BPSystolic	0.01933 (0.206)	0.049 (0.22)	0.06782 (0.844)
CardSort_AgeAdj	0.1074 (0.24)	0.05617 (0.978)	0.04379 (0.628)
CardSort_Unadj	0.1401 (0.13)	0.1126 (0.868)	0.04525 (0.628)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.084 (0.226)	0.1144 (0.108)	0.1251 (0.024)
DDisc_AUC_40K	0.05829 (0.638)	0.09263 (0.638)	0.04423 (0.408)

DDisc_SV_10yr_200	0.0461 (0.434)	0.06259 (0.218)	0.07414 (0.022)
DDisc_SV_10yr_40K	0.006709 (0.912)	0.04872 (0.918)	0.02412 (0.45)
DDisc_SV_1mo_200	0.0183 (0.418)	0.02819 (0.316)	0.02649 (0.15)
DDisc_SV_1mo_40K	0.09696 (0.068)	0.05102 (0.562)	0.07486 (0.356)
DDisc_SV_1yr_200	0.04022 (0.416)	0.0906 (0.14)	0.05796 (0.164)
DDisc_SV_1yr_40K	0.109 (0.19)	0.1693 (0.038)	0.03689 (0.218)
DDisc_SV_3yr_200	0.04867 (0.526)	0.1269 (0.172)	0.0908 (0.02)
DDisc_SV_3yr_40K	0.1261 (0.352)	0.103 (0.384)	0.05625 (0.15)
DDisc_SV_5yr_200	0.09186 (0.078)	0.07171 (0.232)	0.1333 (0.106)
DDisc_SV_5yr_40K	0.07989 (0.34)	0.1307 (0.292)	0.05752 (0.304)
DDisc_SV_6mo_200	0.01972 (0.388)	0.1284 (0.048)	0.08353 (0.292)
DDisc_SV_6mo_40K	0.1133 (0.002)	0.1309 (0.012)	0.06702 (0.178)
Dexterity_AgeAdj	0.05913 (0.07)	0.06557 (0.362)	0.06075 (0.848)
Dexterity_Unadj	0.04775 (0.09)	0.06552 (0.208)	0.08422 (0.856)
DSM_Adh_Raw	0.1482 (0.016)	0.03775 (0.18)	0.05023 (0.138)
DSM_Adh_T	0.07902 (0.258)	0.03395 (0.174)	0.03618 (0.3)
DSM_Antis_Raw	0.02858 (0.768)	0.02595 (0.53)	0.06228 (0.024)
DSM_Antis_T	0.01826 (0.66)	0.01721 (0.598)	0.04368 (0.04)
DSM_Anxi_Raw	0.04904 (0.736)	0.06767 (0.458)	0.03494 (0.052)
DSM_Anxi_T	0.05569 (0.638)	0.03971 (0.602)	0.04598 (0.102)
DSM_Avoid_Raw	0.02376 (0.626)	0.04766 (0.112)	0.03208 (0.294)
DSM_Avoid_T	0.02999 (0.622)	0.0316 (0.242)	0.06083 (0.052)
DSM_Depr_Raw	0.09974 (0.016)	0.03564 (0.404)	0.03645 (0.096)
DSM_Depr_T	0.09798 (0.076)	0.03391 (0.32)	0.05454 (0.044)
DSM_Hype_Raw	0.1762 (0.036)	0.04017 (0.318)	0.01474 (0.472)

DSM_Inat_Raw	0.03142 (0.228)	0.0274 (0.516)	0.03497 (0.05)
DSM_Somp_Raw	0.08831 (0.154)	0.05671 (0.222)	0.1999 (0.022)
DSM_Somp_T	0.09855 (0.128)	0.05955 (0.2)	0.167 (0.062)
Emotion_Task_Acc	0.007827 (0.458)	0.01088 (0.186)	0.0185 (0.878)
Emotion_Task_Face_Acc	0.015 (0.954)	0.02325 (0.554)	0.03086 (0.766)
Emotion_Task_Face_Median_RT	0.06097 (0.24)	0.08173 (0.062)	0.0282 (0.888)
Emotion_Task_Median_RT	0.06117 (0.15)	0.06614 (0.26)	0.04077 (0.898)
Emotion_Task_Shape_Acc	0.04697 (0.494)	0.008823 (0.456)	0.09947 (0.28)
Emotion_Task_Shape_Median_RT	0.07422 (0.286)	0.05054 (0.678)	0.05132 (0.826)
EmotSupp_Unadj	0.05653 (0.24)	0.04199 (0.496)	0.06964 (0.382)
Endurance_AgeAdj	0.06203 (0.052)	0.02668 (0.544)	0.03246 (0.278)
Endurance_Unadj	0.0388 (0.128)	0.02612 (0.498)	0.05495 (0.228)
ER40ANG	0.03586 (0.342)	0.009631 (0.544)	0.03521 (0.976)
ER40FEAR	0.09637 (0.014)	0.02405 (0.206)	0.02463 (0.912)
ER40NOE	0.1329 (0.036)	0.08815 (0.75)	0.04919 (0.542)
ER40SAD	0.006321 (0.96)	0.06757 (0.776)	0.0248 (0.28)
ER40_CRT	0.03637 (0.55)	0.03166 (0.694)	0.06595 (0.08)
ER40_CR	0.1765 (p < 0.00017)	0.07393 (0.36)	0.05435 (0.854)
EVA_Denom	0.07665 (0.234)	0.2659 (0.026)	0.04872 (0.574)
FearAffect_Unadj	0.1528 (0.014)	0.05757 (0.472)	0.07359 (0.134)
FearSomat_Unadj	0.1611 (0.04)	0.1993 (0.004)	0.05297 (0.33)
Flanker_AgeAdj	0.1479 (0.136)	0.0943 (0.15)	0.06278 (0.656)
Flanker_Unadj	0.09666 (0.206)	0.06633 (0.216)	0.06752 (0.7)
Friendship_Unadj	0.07275 (0.342)	0.05793 (0.72)	0.1796 (0.056)
GaitSpeed_Comp	0.08982 (0.066)	0.04996 (0.19)	0.08555 (0.188)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)

Gambling_Task_Median_RT_Smaller	0.109 (0.082)	0.02245 (0.326)	0.03169 (0.714)
Gambling_Task_Perc_Larger	0.01918 (0.702)	0.01372 (0.25)	0.01794 (0.622)
Gambling_Task_Perc_Smaller	0.01651 (0.718)	0.01727 (0.286)	0.0185 (0.646)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.1047 (0.11)	0.02195 (0.594)	0.04476 (0.632)
Gambling_Task_Punish_Perc_Larger	0.1208 (0.076)	0.08505 (0.096)	0.02236 (0.626)
Gambling_Task_Punish_Perc_Smaller	0.1225 (0.074)	0.07456 (0.142)	0.0211 (0.632)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0.08491 (0.088)	0.06545 (0.042)	0.04887 (0.478)
Gambling_Task_Reward_Perc_Larger	0.03857 (0.722)	0.01103 (0.81)	0.02796 (0.56)
Gambling_Task_Reward_Perc_Smaller	0.03183 (0.772)	0.009543 (0.796)	0.02255 (0.6)
Handedness	0.03178 (0.84)	0.03925 (0.728)	0.01477 (0.55)
Height	0.1619 (0.002)	0.2322 (0.002)	0.2252 (0.002)
InstruSupp_Unadj	0.03132 (0.67)	0.02683 (0.722)	0.008116 (0.75)
IWRD_RTC	0.03794 (0.594)	0.03074 (0.458)	0.034 (0.37)
IWRD_TOT	0.02577 (0.408)	0.1348 (0.018)	0.03282 (0.822)
Language_Task_Acc	0.07864 (0.13)	0.07225 (0.794)	0.1856 (0.126)
Language_Task_Math_Acc	0.03477 (0.216)	0.06962 (0.752)	0.1749 (0.046)
Language_Task_Math_Avg_Difficulty_Level	0.2226 (0.002)	0.2369 (0.008)	0.03398 (0.498)
Language_Task_Math_Median_RT	0.06779 (0.04)	0.01348 (0.726)	0.04796 (0.194)
Language_Task_Median_RT	0.17 (0.002)	0.1223 (0.012)	0.01971 (0.804)
Language_Task_Story_Acc	0.1241 (0.012)	0.04157 (0.36)	0.2688 (0.016)
Language_Task_Story_Avg_Difficulty_Level	0.1097 (0.484)	0.06558 (0.966)	0.1438 (0.108)
Language_Task_Story_Median_RT	0.2316 (p < 0.00017)	0.2216 (p < 0.00017)	0.02507 (0.86)
LifeSatisf_Unadj	0.02111 (0.676)	0.07598 (0.718)	0.04264 (0.114)

ListSort_AgeAdj	0.2147 (0.01)	0.3023 (p < 0.00017)	0.01017 (0.184)
ListSort_Unadj	0.2221 (0.04)	0.2859 (p < 0.00017)	0.01071 (0.202)
Loneliness_Unadj	0.006997 (0.994)	0.0124 (0.992)	0.1079 (0.032)
Mars_Errs	0.2397 (p < 0.00017)	0.2048 (p < 0.00017)	0.05504 (0.512)
Mars_Final	0.03589 (0.422)	0.06567 (0.05)	0.01267 (0.374)
Mars_Log_Score	0.08123 (0.076)	0.05854 (0.064)	0.02406 (0.464)
MeanPurp_Unadj	0.07494 (0.28)	0.07121 (0.616)	0.04431 (0.396)
MMSE_Score	0.07167 (0.366)	0.07397 (0.128)	0.0337 (0.368)
Noise_Comp	0.03444 (0.208)	0.05297 (0.43)	0.005255 (0.778)
Num_Days_Drank_7days	0.02472 (0.91)	0.06524 (0.602)	0.1626 (0.36)
Num_Days_Used_Any_Tobacco_7days	0.02048 (0.368)	0.03996 (0.462)	0.03967 (0.33)
Odor_AgeAdj	0.04803 (0.384)	0.01784 (0.354)	0.1075 (0.004)
Odor_Unadj	0.0403 (0.388)	0.01303 (0.3)	0.1146 (0.004)
PainIntens_RawScore	0.01279 (0.23)	0.03621 (0.232)	0.04344 (0.56)
PainInterf_Tscore	0.07226 (0.11)	0.1736 (0.022)	0.1815 (0.066)
PercHostil_Unadj	0.06905 (0.206)	0.03482 (0.672)	0.03793 (0.102)
PercReject_Unadj	0.01883 (0.668)	0.03319 (0.648)	0.03877 (0.552)
PercStress_Unadj	0.01669 (0.834)	0.07725 (0.674)	0.07134 (0.018)
PicSeq_AgeAdj	0.1409 (0.028)	0.1547 (0.086)	0.06377 (0.308)
PicSeq_Unadj	0.1645 (0.012)	0.1565 (0.072)	0.05311 (0.35)
PicVocab_AgeAdj	0.04204 (0.422)	0.08282 (0.172)	0.1516 (p < 0.00017)
PicVocab_Unadj	0.03727 (0.448)	0.09603 (0.18)	0.1068 (0.002)
PMAT24_A_CR	0.04683 (0.946)	0.1382 (0.008)	0.1115 (0.204)
PMAT24_A_RTICR	0.03232 (0.888)	0.155 (0.01)	0.1283 (0.246)
PMAT24_A_SI	0.02795 (0.956)	0.1387 (0.01)	0.05538 (0.54)
PosAffect_Unadj	0.05045 (0.522)	0.03578 (0.87)	0.1232 (0.242)

ProcSpeed_AgeAdj	0.01823 (0.898)	0.03811 (0.396)	0.05588 (0.368)
ProcSpeed_Unadj	0.02381 (0.842)	0.03161 (0.566)	0.07012 (0.364)
PSQI_AmtSleep	0.1916 (0.094)	0.08683 (0.016)	0.04142 (0.162)
PSQI_BadDream	0.1417 (0.266)	0.09733 (0.342)	0.01394 (0.75)
PSQI_Bathroom	0.05202 (0.466)	0.1375 (0.008)	0.03216 (0.356)
PSQI_BedPtnrRmate	0.04442 (0.354)	0.02756 (0.782)	0.04097 (0.446)
PSQI_BedTime	0.1373 (0.334)	0.06699 (0.76)	0.02684 (0.84)
PSQI_Breathe	0.004636 (0.082)	0 (1)	0.01232 (0.214)
PSQI_Comp1	0.04336 (0.088)	0.1818 (p < 0.00017)	0.0377 (0.588)
PSQI_Comp2	0.07104 (0.892)	0.0609 (0.936)	0.0342 (0.784)
PSQI_Comp3	0.06614 (0.368)	0.04368 (0.034)	0.03551 (0.386)
PSQI_Comp4	0.1379 (0.824)	0.117 (0.492)	0.07608 (0.044)
PSQI_Comp5	0.1037 (0.43)	0.06205 (0.55)	0.1234 (0.28)
PSQI_Comp6	0.01243 (0.016)	0.03006 (0.026)	0.05016 (0.298)
PSQI_Comp7	0.1175 (0.1)	0.01173 (0.428)	0.01973 (0.548)
PSQI_DayEnthusiasm	0.14 (0.046)	0.06816 (0.536)	0.02533 (0.126)
PSQI_DayStayAwake	0.007302 (0.098)	0 (1)	0.01106 (0.63)
PSQI_GetUpTime	0.09435 (0.086)	0.09188 (0.03)	0.03515 (0.658)
PSQI_Latency30Min	0.03907 (0.876)	0.04519 (0.786)	0.01765 (0.668)
PSQI_Min2Asleep	0.07908 (0.944)	0.07407 (0.916)	0.02409 (0.882)
PSQI_Other	0.07157 (0.03)	0.08451 (0.288)	0.03591 (0.394)
PSQI_Pain	0.09 (0.138)	0.1058 (0.1)	0.09326 (0.212)
PSQI_Quality	0.03516 (0.128)	0.1808 (p < 0.00017)	0.03562 (0.588)
PSQI_Score	0.06474 (0.406)	0.04884 (0.818)	0.01295 (0.392)
PSQI_SleepMeds	0.03324 (0.014)	0.01493 (0.012)	0.03595 (0.344)
PSQI_Snore	0.0149 (0.066)	0.03567 (0.132)	0.04412 (0.37)

PSQI_TooCold	0.03104 (0.634)	0.07217 (0.128)	0.05969 (0.148)
PSQI_TooHot	0.02216 (0.596)	0.07603 (0.662)	0.03714 (0.316)
PSQI_WakeUp	0.05921 (0.474)	0.02625 (0.646)	0.07403 (0.226)
Race	0.01797 (0.092)	0.02951 (0.202)	0.1093 (0.01)
ReadEng_AgeAdj	0.06013 (0.314)	0.104 (0.502)	0.1206 (0.036)
ReadEng_Unadj	0.06266 (0.314)	0.1048 (0.58)	0.1022 (0.06)
Relational_Task_Acc	0.006423 (0.924)	0.02403 (0.654)	0.06599 (0.042)
Relational_Task_Match_Acc	0.02237 (0.716)	0.0615 (0.446)	0.1068 (0.104)
Relational_Task_Match_Median_RT	0.02779 (0.252)	0.05134 (0.104)	0.03348 (0.24)
Relational_Task_Median_RT	0.102 (0.016)	0.1091 (0.01)	0.01727 (0.756)
Relational_Task_Rel_Acc	0.01745 (0.824)	0.01619 (0.45)	0.0367 (0.514)
Relational_Task_Rel_Median_RT	0.1447 (p < 0.00017)	0.08866 (0.062)	0.009725 (0.94)
Sadness_Unadj	0.009083 (0.942)	0.1135 (0.864)	0.08028 (0.062)
SCPT_FN	0.1296 (0.014)	0.06062 (0.16)	0.03294 (0.534)
SCPT_FP	0.02733 (0.594)	0.01401 (0.362)	0.07857 (0.648)
SCPT_LRNR	0.00449 (0.554)	0.05929 (0.232)	0.04227 (0.576)
SCPT_SEN	0.1225 (0.02)	0.0981 (0.074)	0.04541 (0.468)
SCPT_SPEC	0.03131 (0.612)	0.01903 (0.316)	0.06983 (0.706)
SCPT_TN	0.0172 (0.686)	0.01368 (0.382)	0.07081 (0.69)
SCPT_TPRT	0.006341 (0.666)	0.02084 (0.34)	0.02961 (0.508)
SCPT_TP	0.1322 (0.012)	0.09585 (0.08)	0.04981 (0.414)
SelfEff_Unadj	0.1045 (0.168)	0.05392 (0.474)	0.03228 (0.384)
Social_Task_Perc_Random	0.07209 (0.13)	0.05124 (0.114)	0.02089 (0.718)
Social_Task_Perc_TOM	0.06953 (0.242)	0.06655 (0.142)	0.1068 (0.008)
Social_Task_Perc_Unsure	0.05912 (0.07)	0.07705 (0.29)	0.1347 (0.026)



Social_Task_Random_Perc_Random	0.112 (0.072)	0.05708 (0.138)	0.01623 (0.766)
Social_Task_Random_Perc_TOM	0.006539 (0.008)	0 (1)	0.03674 (0.316)
Social_Task_Random_Perc_Unsure	0.03785 (0.338)	0.06501 (0.226)	0.04531 (0.784)
Social_Task_TOM_Median_RT_TOM	0.04294 (0.214)	0.04254 (0.34)	0.03881 (0.81)
Social_Task_TOM_Perc_Random	0.0238 (0.106)	0.007239 (0.038)	0.002558 (0.7)
Social_Task_TOM_Perc_TOM	0.01766 (0.67)	0.02958 (0.138)	0.03883 (0.04)
Social_Task_TOM_Perc_Unsure	0.006841 (0.068)	0.007244 (0.058)	0.1456 (0.006)
SSAGA_Alc_D4_Dp_Sx	0.06487 (0.544)	0.05534 (0.228)	0.1131 (0.614)
SSAGA_BMICatHeaviest	0.06648 (0.626)	0.05523 (0.534)	0.09702 (0.108)
SSAGA_BMICat	0.07644 (0.23)	0.1285 (0.056)	0.2229 (0.012)
SSAGA_ChildhoodConduct	0.009089 (0.834)	0.06039 (0.028)	0.01985 (0.608)
SSAGA_Depressive_Sx	0.1128 (0.46)	0.05607 (0.632)	0.05545 (0.024)
SSAGA_Educ	0.07859 (0.404)	0.07244 (0.822)	0.03449 (0.48)
SSAGA_Income	0.01436 (0.588)	0.05243 (0.766)	0.1067 (0.08)
SSAGA_Mj_Times_Used	0.07248 (0.428)	0.0946 (0.102)	0.08619 (0.034)
SSAGA_TB_Smoking_History	0.04241 (0.374)	0.05926 (0.678)	0.07607 (0.06)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0.1127 (0.018)
SSAGA_Times_Used_Illicits	0.07921 (0.224)	0.06525 (0.134)	0.07633 (0.052)
Strength_AgeAdj	0.1746 (0.01)	0.2307 (p < 0.00017)	0.07407 (0.038)
Strength_Unadj	0.2082 (0.004)	0.241 (0.002)	0.0815 (0.024)
Taste_AgeAdj	0.03951 (0.062)	0.04741 (0.182)	0.006844 (0.396)
Taste_Unadj	0.02486 (0.114)	0.05035 (0.152)	0.006252 (0.52)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0.09678 (0.248)
Total_Any_Tobacco_7days	0.0068 (0.04)	0 (1)	0.1033 (0.138)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0.0005036 (0.024)	0.09687 (0.192)
Total_Drinks_7days	0.02326 (0.934)	0.0453 (0.752)	0.2017 (0.412)

VSPLOT_CRTE	0.007291 (0.778)	0.06316 (0.8)	0.02724 (0.684)
VSPLOT_OFF	0.08471 (0.06)	0.2419 (p < 0.00017)	0.111 (0.106)
VSPLOT_TC	0.05086 (0.09)	0.1707 (0.002)	0.06812 (0.244)
Weight	0.1387 (0.002)	0.1976 (p < 0.00017)	0.1684 (0.008)
WM_Task_Obk_Acc	0.06421 (0.31)	0.02591 (0.308)	0.09371 (0.01)
WM_Task_Obk_Body_Acc	0.03645 (0.338)	0.09258 (0.034)	0.03779 (0.288)
WM_Task_Obk_Body_Acc_Nontarget	0.03387 (0.746)	0.09534 (0.08)	0.04514 (0.196)
WM_Task_Obk_Body_Acc_Target	0.01889 (0.588)	0.0324 (0.224)	0.06636 (0.238)
WM_Task_Obk_Body_Median_RT	0.0185 (0.422)	0.08248 (0.142)	0.01532 (0.774)
WM_Task_Obk_Body_Median_RT_Nontarget	0.00748 (0.434)	0.05723 (0.184)	0.04319 (0.72)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.03883 (0.406)	0.02092 (0.42)	0.1052 (0.144)
WM_Task_Obk_Face_ACC_Nontarget	0.03361 (0.46)	0.02954 (0.446)	0.09408 (0.184)
WM_Task_Obk_Face_Acc_Target	0.04771 (0.296)	0.03585 (0.404)	0.1767 (0.012)
WM_Task_Obk_Face_Median_RT	0.01492 (0.684)	0.01925 (0.814)	0.03523 (0.962)
WM_Task_Obk_Face_Median_RT_Nontarget	0.01389 (0.672)	0.02934 (0.822)	0.03888 (0.99)
WM_Task_Obk_Face_Median_RT_Target	0.02857 (0.898)	0.01601 (0.796)	0.01039 (0.208)
WM_Task_Obk_Median_RT	0.00539 (0.558)	0.02641 (0.82)	0.008599 (0.946)
WM_Task_Obk_Place_Acc	0.04489 (0.444)	0.1194 (0.056)	0.02976 (0.702)
WM_Task_Obk_Place_Acc_Nontarget	0.03255 (0.266)	0.0575 (0.132)	0.01962 (0.266)
WM_Task_Obk_Place_Acc_Target	0.005919 (0.876)	0.04974 (0.494)	0.02539 (0.962)
WM_Task_Obk_Place_Median_RT	0.01732 (0.708)	0.0435 (0.782)	0.005858 (0.986)
WM_Task_Obk_Place_Median_RT_Nontarget	0.01548 (0.76)	0.04996 (0.748)	0.01221 (0.994)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1143 (0.144)	0.0453 (0.302)	0.1229 (0.01)
WM_Task_Obk_Tool_Acc_Nontarget	0.04063 (0.522)	0.04002 (0.27)	0.1573 (0.004)

WM_Task_Obk_Tool_Acc_Target	0.2414 (p < 0.00017)	0.08719 (0.056)	0.1493 (0.006)
WM_Task_Obk_Tool_Median_RT	0.0326 (0.47)	0.02039 (0.92)	0.0517 (0.826)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.04356 (0.484)	0.02205 (0.92)	0.02853 (0.906)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.05827 (0.094)	0.09588 (0.1)	0.06455 (0.042)
WM_Task_2bk_Body_Acc	0.04249 (0.608)	0.02492 (0.39)	0.02185 (0.46)
WM_Task_2bk_Body_Acc_Nontarget	0.0438 (0.438)	0.01081 (0.654)	0.06367 (0.236)
WM_Task_2bk_Body_Acc_Target	0.1272 (0.158)	0.07795 (0.078)	0.006628 (0.24)
WM_Task_2bk_Body_Median_RT	0.008106 (0.968)	0.04319 (0.482)	0.017 (0.426)
WM_Task_2bk_Body_Median_RT_Nontarget	0.02464 (0.894)	0.03833 (0.562)	0.02412 (0.376)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.06956 (0.114)	0.05912 (0.32)	0.06003 (0.006)
WM_Task_2bk_Face_Acc_Nontarget	0.07637 (0.078)	0.02776 (0.492)	0.09916 (0.11)
WM_Task_2bk_Face_Acc_Target	0.07548 (0.53)	0.1913 (p < 0.00017)	0.0263 (0.06)
WM_Task_2bk_Face_Median_RT	0.07842 (0.46)	0.1338 (0.422)	0.05611 (0.266)
WM_Task_2bk_Face_Median_RT_Nontarget	0.08338 (0.36)	0.1503 (0.288)	0.05137 (0.292)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1012 (0.432)	0.1356 (0.332)	0.09471 (0.06)
WM_Task_2bk_Place_Acc	0.02858 (0.112)	0.04987 (0.574)	0.02864 (0.458)
WM_Task_2bk_Place_Acc_Nontarget	0.01623 (0.348)	0.02634 (0.588)	0.06438 (0.37)
WM_Task_2bk_Place_Acc_Target	0.02748 (0.126)	0.009912 (0.406)	0.009474 (0.664)
WM_Task_2bk_Place_Median_RT	0.09129 (0.158)	0.04433 (0.672)	0.03044 (0.636)
WM_Task_2bk_Place_Median_RT_Nontarget	0.04195 (0.308)	0.01768 (0.768)	0.04062 (0.732)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1338 (p < 0.00017)	0.117 (0.05)	0.1095 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.06213 (0.1)	0.04218 (0.384)	0.09273 (0.01)
WM_Task_2bk_Tool_Acc_Target	0.1493 (0.006)	0.1003 (0.124)	0.0462 (0.222)

WM_Task_2bk_Tool_Median_RT	0.0753 (0.538)	0.0964 (0.66)	0.1282 (0.014)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.04919 (0.688)	0.03881 (0.766)	0.09094 (0.168)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.07351 (0.09)	0.1128 (0.046)	0.0865 (0.07)
WM_Task_Median_RT	0.03174 (0.59)	0.06531 (0.548)	0.05669 (0.634)
ZygotitySR	0 (1)	0 (1)	0 (1)

1200 volumes   100 subjects			
	tfMRI_GAMBLING	tfMRI_LANGUAGE	tfMRI_MOTOR
Age_in_Yrs	0.1098 (0.114)	0.1211 (0.04)	0.09353 (0.03)
AngAffect_Unadj	0.04521 (0.334)	0.142 (0.06)	0.0647 (0.682)
AngAggr_Unadj	0.01502 (0.522)	0.03278 (0.292)	0.1079 (0.288)
AngHostil_Unadj	0.06386 (0.52)	0.02009 (0.264)	0.06059 (0.186)
ASR_Aggr_Raw	0.03533 (0.614)	0.02162 (0.664)	0.09762 (0.22)
ASR_Aggr_T	0.02145 (0.89)	0.019 (0.608)	0.09323 (0.38)
ASR_Anxd_Pct	0.01718 (0.49)	0.03557 (0.268)	0.0272 (0.446)
ASR_Anxd_Raw	0.02661 (0.234)	0.04803 (0.056)	0.02068 (0.49)
ASR_Attn_Raw	0.08151 (0.118)	0.0288 (0.086)	0.01808 (0.626)
ASR_Attn_T	0.08756 (0.168)	0.03353 (0.22)	0.03548 (0.636)
ASR_Crit_Raw	0.07027 (0.51)	0.006324 (0.366)	0.0626 (0.38)
ASR_Extn_Raw	0.08358 (0.264)	0.01849 (0.702)	0.09978 (0.12)
ASR_Extn_T	0.09419 (0.13)	0.01321 (0.752)	0.091 (0.098)
ASR_Intn_Raw	0.04197 (0.06)	0.03514 (0.24)	0.02205 (0.416)
ASR_Intn_T	0.04361 (0.046)	0.02147 (0.106)	0.009728 (0.408)
ASR_Intr_Raw	0.09055 (0.148)	0.0839 (0.372)	0.1346 (0.184)
ASR_Intr_T	0.08109 (0.142)	0.0357 (0.41)	0.132 (0.138)
ASR_Oth_Raw	0.1085 (0.054)	0.002388 (0.34)	0.08908 (0.102)
ASR_Rule_Raw	0.157 (0.046)	0.03451 (0.356)	0.1008 (0.184)

ASR_Rule_T	0.1018 (0.214)	0.04642 (0.258)	0.05957 (0.288)
ASR_Soma_Raw	0.02958 (0.186)	0.05054 (0.43)	0.09165 (0.114)
ASR_Soma_T	0.01133 (0.276)	0.03814 (0.546)	0.05494 (0.204)
ASR_TAO_Sum	0.1009 (0.018)	0.001074 (0.162)	0.0535 (0.22)
ASR_Thot_Raw	0.02275 (0.342)	0.01776 (0.056)	0.09386 (0.066)
ASR_Thot_T	0.01414 (0.298)	0.03959 (0.086)	0.1151 (0.134)
ASR_Totp_Raw	0.06973 (0.052)	0.0163 (0.358)	0.04448 (0.288)
ASR_Totp_T	0.07536 (0.022)	0.01187 (0.268)	0.03738 (0.274)
ASR_Witd_Raw	0.06865 (0.022)	0.01879 (0.416)	0.06857 (0.256)
ASR_Witd_T	0.06209 (0.026)	0.02099 (0.248)	0.04893 (0.2)
Avg_Weekday_Any_Tobacco_7days	0.0609 (0.144)	0.02247 (0.458)	0.1044 (0.786)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0.004059 (0.018)
Avg_Weekday_Cigarettes_7days	0.09559 (0.042)	0.01089 (0.53)	0.09841 (0.754)
Avg_Weekday_Drinks_7days	0.07421 (0.518)	0.06207 (0.232)	0.06388 (0.13)
Avg_Weekend_Any_Tobacco_7days	0.1506 (0.044)	0.01646 (0.434)	0.1037 (0.898)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0.01772 (0.042)
Avg_Weekend_Cigarettes_7days	0.1308 (0.036)	0.01388 (0.37)	0.06924 (0.902)
Avg_Weekend_Drinks_7days	0.0791 (0.062)	0.0209 (0.324)	0.05545 (0.446)
BMI	0.1139 (0.02)	0.1197 (0.318)	0.1204 (0.234)
BPDiastolic	0.05324 (0.19)	0.04028 (0.834)	0.1705 (0.002)
BPSystolic	0.1061 (0.104)	0.149 (0.006)	0.2128 (p < 0.00017)
CardSort_AgeAdj	0.04431 (0.616)	0.07688 (0.004)	0.08654 (0.002)
CardSort_Unadj	0.06346 (0.604)	0.08737 (p < 0.00017)	0.0951 (0.002)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)

CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.2601 (0.012)	0.1795 (0.04)	0.03689 (0.462)
DDisc_AUC_40K	0.1183 (0.232)	0.1157 (0.54)	0.04008 (0.144)
DDisc_SV_10yr_200	0.1013 (0.102)	0.1881 (0.004)	0.04359 (0.362)
DDisc_SV_10yr_40K	0.05229 (0.852)	0.09741 (0.756)	0.03698 (0.26)
DDisc_SV_1mo_200	0.1616 (0.01)	0.2399 (0.052)	0.02895 (0.3) 0.08856
DDisc_SV_1mo_40K	0.0319 (0.894)	0.07628 (0.472)	(0.09) 0.04411
DDisc_SV_1yr_200	0.2591 (0.206)	0.1916 (0.286)	(0.134) 0.08382
DDisc_SV_1yr_40K	0.06642 (0.366)	0.1264 (0.062)	(0.106) 0.04185
DDisc_SV_3yr_200	0.2599 (0.002)	0.1982 (0.008)	(0.66) 0.07286
DDisc_SV_3yr_40K	0.25 (0.034)	0.1141 (0.058)	(0.054) 0.04427
DDisc_SV_5yr_200	0.2471 (0.002)	0.1017 (0.136)	(0.44) 0.04163
DDisc_SV_5yr_40K	0.07266 (0.232)	0.09096 (0.608)	(0.188) 0.03457
DDisc_SV_6mo_200	0.1137 (0.492)	0.1918 (0.104)	(0.278) 0.03369
DDisc_SV_6mo_40K	0.1321 (0.178)	0.1884 (0.254)	(0.056) 0.04516
Dexterity_AgeAdj	0.1703 (0.002)	0.1227 (0.264)	(0.01) 0.05667
Dexterity_Unadj	0.1349 (p < 0.00017)	0.1423 (0.256)	(0.006) 0.005776
DSM_Adh_Raw	0.06689 (0.23)	(0.322)	0.05322 (0.372)
DSM_Adh_T	0.08621 (0.278)	0.01403 (0.306)	0.06852 (0.432)
DSM_Antis_Raw	0.09113 (0.18)	0.01888 (0.568)	0.1019 (0.014)
DSM_Antis_T	0.07968 (0.156)	0.01619 (0.456)	0.08506 (0.064)
DSM_Anxi_Raw	0.06582 (0.084)	0.05168 (0.048)	0.07222 (0.068)
DSM_Anxi_T	0.0247 (0.272)	0.0137 (0.536)	0.06209 (0.234)
DSM_Avoid_Raw	0.009031 (0.384)	0.06761 (0.21)	0.01842 (0.706)

DSM_Avoid_T	0.01645 (0.224)	0.06772 (0.2)	0.02077 (0.568)
DSM_Depr_Raw	0.06719 (0.072)	0.0317 (0.18)	0.04185 (0.396)
DSM_Depr_T	0.03844 (0.34)	0.02424 (0.612)	0.04098 (0.326)
DSM_Hype_Raw	0.05576 (0.314)	0.02021 (0.704)	0.02659 (0.532)
DSM_Inat_Raw	0.05702 (0.284)	0.03964 (0.096)	0.03475 (0.602)
DSM_Somp_Raw	0.07437 (0.106)	0.06348 (0.42)	0.1381 (0.032)
DSM_Somp_T	0.07368 (0.102)	0.05976 (0.46)	0.07879 (0.138)
Emotion_Task_Acc	0.02831 (0.102)	0.0665 (0.844)	0.04749 (0.954)
Emotion_Task_Face_Acc	0.04766 (0.41)	0.01283 (0.958)	0.0315 (0.428)
Emotion_Task_Face_Median_RT	0.04663 (0.372)	0.1049 (0.042)	0.08065 (0.122)
Emotion_Task_Median_RT	0.03018 (0.4)	0.06854 (0.19)	0.1269 (0.042)
Emotion_Task_Shape_Acc	0.03923 (0.14)	0.1567 (0.146)	0.0614 (0.49)
Emotion_Task_Shape_Median_RT	0.0255 (0.288)	0.0259 (0.456)	0.1391 (0.074)
EmotSupp_Unadj	0.08616 (0.002)	0.003252 (0.41)	0.05119 (0.502)
Endurance_AgeAdj	0.03856 (0.338)	0.05265 (0.298)	0.04463 (0.052)
Endurance_Unadj	0.02992 (0.38)	0.06561 (0.258)	0.07458 (0.024)
ER40ANG	0.007954 (0.918)	0.07974 (0.038)	0.04656 (0.262)
ER40FEAR	0.03892 (0.266)	0.09749 (0.036)	0.1043 (0.01)
ER40NOE	0.02332 (0.684)	0.06596 (0.526)	0.0571 (0.288)
ER40SAD	0.07096 (0.156)	0.1305 (0.54)	0.04414 (0.49)
ER40_CRT	0.03093 (0.64)	0.02952 (0.76)	0.09516 (0.08)
ER40_CR	0.01797 (0.966)	0.1471 (0.042)	0.04669 (0.39)
EVA_Denom	0.04426 (0.492)	0.116 (0.08)	0.007259 (0.332)
FearAffect_Unadj	0.1093 (0.088)	0.02702 (0.192)	0.01466 (0.59)
FearSomat_Unadj	0.06377 (0.152)	0.01276 (0.976)	0.07799 (0.474)
Flanker_AgeAdj	0.009651 (0.204)	0.09671 (0.028)	0.1379 (0.05)

Flanker_Unadj	0.01023 (0.208)	0.1219 (0.01)	0.1374 (0.21)
Friendship_Unadj	0.06719 (0.044)	0.01358 (0.282)	0.071 (0.304)
GaitSpeed_Comp	0.05738 (0.372)	0.1059 (0.012)	0.05087 (0.504)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.05111 (0.658)	0.1513 (0.252)	0.05109 (0.234)
Gambling_Task_Perc_Larger	0.05043 (0.296)	0.07656 (0.576)	0.1216 (0.088)
Gambling_Task_Perc_Smaller	0.04381 (0.344)	0.05905 (0.686)	0.1122 (0.118)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.04958 (0.52)	0.1483 (0.274)	0.06551 (0.388)
Gambling_Task_Punish_Perc_Larger	0.05197 (0.434)	0.03009 (0.42)	0.03278 (0.294)
Gambling_Task_Punish_Perc_Smaller	0.04126 (0.504)	0.03047 (0.404)	0.01796 (0.38)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0.04743 (0.778)	0.1652 (0.09)	0.07092 (0.058)
Gambling_Task_Reward_Perc_Larger	0.03545 (0.64)	0.03599 (0.7)	0.2308 (0.014)
Gambling_Task_Reward_Perc_Smaller	0.03263 (0.674)	0.03569 (0.72)	0.2124 (0.02)
Handedness	0.05629 (0.234)	0.03059 (0.344)	0.05403 (0.188)
Height	0.2722 (0.002)	0.1007 (0.118)	0.3767 (p < 0.00017)
InstruSupp_Unadj	0.04315 (0.476)	0.05776 (0.504)	0.05832 (0.534)
IWRD_RTC	0.0691 (0.372)	0.03678 (0.138)	0.04388 (0.652)
IWRD_TOT	0.008556 (0.32)	0.02645 (0.42)	0.06915 (0.102)
Language_Task_Acc	0.1869 (0.118)	0.2591 (p < 0.00017)	0.07386 (0.536)
Language_Task_Math_Acc	0.1233 (0.124)	0.1787 (p < 0.00017)	0.0302 (0.61)
Language_Task_Math_Avg_Difficulty_Level	0.2151 (0.16)	0.1956 (p < 0.00017)	0.03779 (0.142)
Language_Task_Math_Median_RT	0.008193 (0.334)	0.007423 (0.884)	0.03388 (0.472)
Language_Task_Median_RT	0.01921 (0.224)	0.02136 (0.95)	0.01872 (0.392)
Language_Task_Story_Acc	0.1065 (0.262)	0.2529 (0.006)	0.13 (0.156)



Language_Task_Story_Avg_Difficulty_Level	0.2068 (0.362)	0.2778 (p < 0.00017)	0.09816 (0.562)
Language_Task_Story_Median_RT	0.02288 (0.052)	0.0317 (0.676)	0.02039 (0.296)
LifeSatisf_Unadj	0.01141 (0.636)	0.047 (0.488)	0.068 (0.234)
ListSort_AgeAdj	0.0764 (0.738)	0.05989 (0.35)	0.04723 (0.622)
ListSort_Unadj	0.1165 (0.644)	0.06161 (0.272)	0.02673 (0.698)
Loneliness_Unadj	0.0458 (0.622)	0.07833 (0.068)	0.0803 (0.334)
Mars_Errs	0.07405 (0.832)	0.04562 (0.086)	0.1063 (0.292)
Mars_Final	0.1647 (0.008)	0.03296 (0.606)	0.1682 (0.306)
Mars_Log_Score	0.1198 (0.076)	0.05118 (0.78)	0.1025 (0.528)
MeanPurp_Unadj	0.09811 (0.042)	0.04981 (0.384)	0.07769 (0.15)
MMSE_Score	0.07536 (0.102)	0.02524 (0.6)	0.0369 (0.462)
Noise_Comp	0.006121 (0.672)	0.01529 (0.524)	0.04527 (0.31)
Num_Days_Drank_7days	0.007269 (0.468)	0.08944 (0.082)	0.01761 (0.52)
Num_Days_Used_Any_Tobacco_7days	0.1364 (0.068)	0.02459 (0.516)	0.1274 (0.73)
Odor_AgeAdj	0.08633 (0.042)	0.04106 (0.18)	0.0281 (0.08)
Odor_Unadj	0.04903 (0.048)	0.04123 (0.202)	0.03295 (0.122)
PainIntens_RawScore	0.08974 (0.22)	0.1596 (0.298)	0.04584 (0.13)
PainInterf_Tscore	0.03358 (0.132)	0.1329 (0.222)	0.03322 (0.3)
PercHostil_Unadj	0.06599 (0.318)	0.01497 (0.678)	0.05581 (0.9)
PercReject_Unadj	0.0216 (0.486)	0.02176 (0.3)	0.09608 (0.198)
PercStress_Unadj	0.05203 (0.226)	0.03359 (0.292)	0.04401 (0.432)
PicSeq_AgeAdj	0.07975 (0.612)	0.03398 (0.4)	0.01673 (0.624)
PicSeq_Unadj	0.08931 (0.49)	0.06113 (0.262)	0.02078 (0.542)
PicVocab_AgeAdj	0.1235 (0.24)	0.2427 (p < 0.00017)	0.241 (0.02)
PicVocab_Unadj	0.1421 (0.146)	0.1979 (p < 0.00017)	0.2086 (0.016)
PMAT24_A_CR	0.08043 (0.992)	0.3301 (0.048)	0.097 (0.016)
PMAT24_A_RTcr	0.04561 (0.826)	0.2394 (0.254)	0.06614 (0.014)

PMAT24_A_SI	0.04479 (0.994)	0.2749 (0.03)	0.09011 (0.024)
PosAffect_Unadj	0.02998 (0.442)	0.01997 (0.764)	0.006183 (0.978)
ProcSpeed_AgeAdj	0.0214 (0.66)	0.05261 (0.65)	0.02877 (0.306)
ProcSpeed_Unadj	0.05657 (0.496)	0.07333 (0.63)	0.02144 (0.3)
PSQI_AmtSleep	0.0694 (0.996)	0.01878 (0.712)	0.01089 (0.984)
PSQI_BadDream	0.01697 (0.244)	0.02493 (0.334)	0.08973 (0.084)
PSQI_Bathroom	0.03522 (0.59)	0.0431 (0.364)	0.08506 (0.202)
PSQI_BedPtrnRmate	0.07572 (0.926)	0.05465 (0.862)	0.04319 (0.3)
PSQI_BedTime	0.05143 (0.774)	0.02599 (0.992)	0.09398 (0.738)
PSQI_Breathe	0.07312 (0.174)	0.02713 (0.002)	0.06313 (0.296)
PSQI_Comp1	0.04436 (0.274)	0.04109 (0.008)	0.006157 (0.17)
PSQI_Comp2	0.06852 (0.284)	0.1333 (0.002)	0.02175 (0.682)
PSQI_Comp3	0.04123 (0.972)	0.02683 (0.8)	0.03129 (0.78)
PSQI_Comp4	0.07107 (0.654)	0.06649 (0.87)	0.09602 (0.594)
PSQI_Comp5	0.06117 (0.596)	0.06339 (0.462)	0.07014 (0.344)
PSQI_Comp6	0.09581 (0.178)	0.1696 (0.032)	0.01723 (0.65)
PSQI_Comp7	0.05903 (0.358)	0.09849 (0.06)	0.101 (0.034)
PSQI_DayEnthusiasm	0.08228 (0.196)	0.02042 (0.164)	0.07806 (0.01)
PSQI_DayStayAwake	0.02313 (0.702)	0.09142 (0.106)	0.1207 (0.042)
PSQI_GetUpTime	0.02611 (0.634)	0.04439 (0.852)	0.06066 (0.364)
PSQI_Latency30Min	0.04036 (0.724)	0.105 (0.036)	0.05065 (0.232)
PSQI_Min2Asleep	0.05603 (0.356)	0.1871 (p < 0.00017)	0.02373 (0.998)
PSQI_Other	0.01475 (0.368)	0.009468 (0.552)	0.009083 (0.942)
PSQI_Pain	0.07867 (0.186)	0.2222 (0.06)	0.07673 (0.35)
PSQI_Quality	0.05038 (0.198)	0.03641 (0.006)	0.008864 (0.174)
PSQI_Score	0.1271 (0.298)	0.04527 (0.262)	0.01131 (0.644)

PSQI_SleepMeds	0.07608 (0.25)	0.1655 (0.06)	0.0148 (0.662)
PSQI_Snore	0.144 (0.296)	0.1807 (0.028)	0.09522 (0.122)
PSQI_TooCold	0.02694 (0.796)	0.1222 (0.002)	0.1048 (0.17)
PSQI_TooHot	0.06068 (0.336)	0.01974 (0.75)	0.2184 (p < 0.00017)
PSQI_WakeUp	0.09069 (0.198)	0.0442 (0.066)	0.02449 (0.494)
Race	0.04589 (0.638)	0.1011 (0.012)	0.05111 (0.778)
ReadEng_AgeAdj	0.1371 (0.482)	0.282 (p < 0.00017)	0.1347 (0.182)
ReadEng_Unadj	0.1112 (0.568)	0.2636 (p < 0.00017)	0.1109 (0.328)
Relational_Task_Acc	0.07438 (0.978)	0.1666 (0.63)	0.02296 (0.648)
Relational_Task_Match_Acc	0.01323 (0.982)	0.1964 (0.512)	0.0544 (0.33)
Relational_Task_Match_Median_RT	0.09137 (0.014)	0.1146 (0.56)	0.07406 (0.618)
Relational_Task_Median_RT	0.1758 (p < 0.00017)	0.04045 (0.536)	0.0765 (0.442)
Relational_Task_Rel_Acc	0.1135 (0.786)	0.1004 (0.774)	0.01839 (0.668)
Relational_Task_Rel_Median_RT	0.2053 (0.002)	0.02908 (0.524)	0.06461 (0.33)
Sadness_Unadj	0.0571 (0.244)	0.04662 (0.01)	0.05136 (0.686)
SCPT_FN	0.05524 (0.462)	0.01901 (0.84)	0.07267 (0.18)
SCPT_FP	0.07888 (0.564)	0.06378 (0.464)	0.05195 (0.816)
SCPT_LRNR	0.02144 (0.786)	0.08557 (0.47)	0.01878 (0.858)
SCPT_SEN	0.05266 (0.466)	0.03445 (0.736)	0.07262 (0.18)
SCPT_SPEC	0.0813 (0.586)	0.04237 (0.618)	0.0571 (0.812)
SCPT_TN	0.08527 (0.55)	0.05221 (0.534)	0.04612 (0.862)
SCPT_TPRT	0.02293 (0.472)	0.01361 (0.554)	0.05495 (0.376)
SCPT_TP	0.05098 (0.448)	0.02499 (0.774)	0.09264 (0.118)
SelfEff_Unadj	0.04977 (0.366)	0.05483 (0.172)	0.1426 (0.026)
Social_Task_Perc_Random	0.1128 (0.046)	0.01724 (0.42)	0.02093 (0.95)
Social_Task_Perc_TOM	0.1028 (0.382)	0.142 (0.246)	0.05423 (0.132)

Social_Task_Perc_Unsure	0.1314 (0.042)	0.07464 (0.21)	0.1218 (0.228)
Social_Task_Random_Perc_Random	0.1265 (0.02)	0.04734 (0.474)	0.04227 (0.85)
Social_Task_Random_Perc_TOM	0.02219 (0.068)	0.09611 (0.24)	0.06434 (0.088)
Social_Task_Random_Perc_Unsure	0.1471 (0.014)	0.01704 (0.298)	0.132 (0.324)
Social_Task_TOM_Median_RT_TOM	0.00562 (0.664)	0.001523 (0.966)	0.01704 (0.438)
Social_Task_TOM_Perc_Random	0.02097 (0.232)	0.02376 (0.22)	0.01334 (0.602)
Social_Task_TOM_Perc_TOM	0.02015 (0.672)	0.1224 (0.01)	0.0311 (0.492)
Social_Task_TOM_Perc_Unsure	0.07356 (0.34)	0.06786 (0.416)	0.08474 (0.096)
SSAGA_Alc_D4_Dp_Sx	0.07956 (0.846)	0.178 (0.044)	0.1022 (0.862)
SSAGA_BMICatHeaviest	0.1044 (0.016)	0.08528 (0.514)	0.03785 (0.632)
SSAGA_BMICat	0.1645 (0.022)	0.1724 (0.17)	0.1122 (0.014)
SSAGA_ChildhoodConduct	0.01661 (0.942)	0.05094 (0.458)	0.03496 (0.626)
SSAGA_Depressive_Sx	0.07494 (0.416)	0.06463 (0.076)	0.112 (0.128)
SSAGA_Educ	0.2198 (0.064)	0.299 (p < 0.00017)	0.194 (0.07)
SSAGA_Income	0.1109 (0.766)	0.1051 (0.12)	0.01102 (0.804)
SSAGA_Mj_Times_Used	0.09032 (0.032)	0.04556 (0.064)	0.04079 (0.398)
SSAGA_TB_Smoking_History	0.1586 (p < 0.00017)	0.05137 (0.298)	0.1172 (0.134)
SSAGA_Times_Used_Hallucinogens	0.119 (0.1)	0.05259 (0.258)	0.07137 (0.072)
SSAGA_Times_Used_Illicits	0.06009 (0.364)	0.06088 (0.164)	0.0397 (0.276)
Strength_AgeAdj	0.235 (0.006)	0.1814 (0.004)	0.2325 (0.002)
Strength_Unadj	0.2291 (0.002)	0.1912 (p < 0.00017)	0.2134 (0.008)
Taste_AgeAdj	0.04778 (0.542)	0.05296 (0.102)	0.1673 (0.006)
Taste_Unadj	0.05007 (0.552)	0.04634 (0.15)	0.1535 (0.016)
Times_Used_Any_Tobacco_Today	0.02838 (0.178)	0.0007815 (0.63)	0.04221 (0.65)
Total_Any_Tobacco_7days	0.09618 (0.088)	0.01688 (0.47)	0.132 (0.712)
Total_Chew_7days	0 (1)	0 (1)	0.005544 (0.016)

Total_Cigarettes_7days	0.1209 (0.026)	0.02006 (0.51)	0.1033 (0.806)
Total_Drinks_7days	0.01485 (0.346)	0.04142 (0.218)	0.04642 (0.32)
VSPLOT_CRTE	0.01241 (0.708)	0.1061 (0.162)	0.05099 (0.782)
VSPLOT_OFF	0.02479 (0.872)	0.1219 (0.048)	0.08118 (0.238)
VSPLOT_TC	0.005917 (0.938)	0.1053 (0.162)	0.06457 (0.522)
Weight	0.2106 (p < 0.00017)	0.1504 (0.034)	0.3415 (p < 0.00017)
WM_Task_Obk_Acc	0.03324 (0.49)	0.03755 (0.17)	0.0987 (0.658)
WM_Task_Obk_Body_Acc	0.04518 (0.094)	0.01894 (0.87)	0.1141 (0.29)
WM_Task_Obk_Body_Acc_Nontarget	0.02302 (0.34)	0.01824 (0.828)	0.1228 (0.274)
WM_Task_Obk_Body_Acc_Target	0.02916 (0.104)	0.02671 (0.758)	0.1167 (0.208)
WM_Task_Obk_Body_Median_RT	0.07937 (0.028)	0.1154 (0.102)	0.1295 (0.708)
WM_Task_Obk_Body_Median_RT_Nontarget	0.07452 (0.032)	0.09072 (0.212)	0.1169 (0.732)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.01641 (0.52)	0.07501 (0.046)	0.1037 (0.068)
WM_Task_Obk_Face_ACC_Nontarget	0.02563 (0.716)	0.1039 (0.048)	0.08646 (0.124)
WM_Task_Obk_Face_Acc_Target	0.02711 (0.206)	0.03589 (0.15)	0.06472 (0.414)
WM_Task_Obk_Face_Median_RT	0.02529 (0.332)	0.03399 (0.506)	0.05582 (0.748)
WM_Task_Obk_Face_Median_RT_Nontarget	0.04051 (0.246)	0.03144 (0.516)	0.05927 (0.838)
WM_Task_Obk_Face_Median_RT_Target	0.01147 (0.524)	0.05747 (0.56)	0.04702 (0.122)
WM_Task_Obk_Median_RT	0.03008 (0.65)	0.05046 (0.79)	0.07133 (0.806)
WM_Task_Obk_Place_Acc	0.07936 (0.482)	0.02749 (0.102)	0.04848 (0.936)
WM_Task_Obk_Place_Acc_Nontarget	0.0642 (0.246)	0.01515 (0.288)	0.04599 (0.984)
WM_Task_Obk_Place_Acc_Target	0.05095 (0.56)	0.05571 (0.06)	0.0412 (0.544)
WM_Task_Obk_Place_Median_RT	0.06859 (0.166)	0.04909 (0.296)	0.0835 (0.622)
WM_Task_Obk_Place_Median_RT_Nontarget	0.06253 (0.14)	0.0701 (0.12)	0.06225 (0.61)

WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.01945 (0.562)	0.02217 (0.62)	0.0149 (0.806)
WM_Task_Obk_Tool_Acc_Nontarget	0.01956 (0.82)	0.02296 (0.816)	0.02888 (0.634)
WM_Task_Obk_Tool_Acc_Target	0.02331 (0.106)	0.01846 (0.27)	0.01147 (0.35)
WM_Task_Obk_Tool_Median_RT	0.03732 (0.712)	0.05076 (0.83)	0.05858 (0.52)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.03176 (0.718)	0.05961 (0.768)	0.07138 (0.366)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.105 (0.176)	0.1308 (0.034)	0.1525 (0.178)
WM_Task_2bk_Body_Acc	0.06744 (0.044)	0.06641 (0.348)	0.1288 (0.076)
WM_Task_2bk_Body_Acc_Nontarget	0.0636 (0.306)	0.09334 (0.238)	0.04479 (0.348)
WM_Task_2bk_Body_Acc_Target	0.07483 (0.3)	0.1014 (0.084)	0.1882 (0.01)
WM_Task_2bk_Body_Median_RT	0.03105 (0.808)	0.1174 (0.372)	0.09318 (0.306)
WM_Task_2bk_Body_Median_RT_Nontarget	0.04872 (0.352)	0.105 (0.56)	0.05218 (0.352)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1268 (0.928)	0.1879 (0.014)	0.101 (0.228)
WM_Task_2bk_Face_Acc_Nontarget	0.1193 (0.646)	0.1339 (0.024)	0.131 (0.07)
WM_Task_2bk_Face_Acc_Target	0.04041 (0.714)	0.1247 (0.106)	0.07531 (0.456)
WM_Task_2bk_Face_Median_RT	0.18 (0.038)	0.03668 (0.29)	0.1371 (0.234)
WM_Task_2bk_Face_Median_RT_Nontarget	0.1548 (0.07)	0.02417 (0.44)	0.1245 (0.26)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1344 (0.094)	0.06013 (0.408)	0.08688 (0.738)
WM_Task_2bk_Place_Acc	0.1361 (0.024)	0.211 (p < 0.00017)	0.09447 (0.568)
WM_Task_2bk_Place_Acc_Nontarget	0.04452 (0.592)	0.2124 (p < 0.00017)	0.01776 (0.842)
WM_Task_2bk_Place_Acc_Target	0.04596 (0.176)	0.127 (0.004)	0.02939 (0.54)
WM_Task_2bk_Place_Median_RT	0.08132 (0.116)	0.03202 (0.586)	0.03007 (0.806)

WM_Task_2bk_Place_Median_RT_Nontarget	0.07457 (0.158)	0.03199 (0.504)	0.03261 (0.694)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.07245 (0.186)	0.07308 (0.276)	0.03206 (0.566)
WM_Task_2bk_Tool_Acc_Nontarget	0.03753 (0.314)	0.07319 (0.418)	0.09457 (0.438)
WM_Task_2bk_Tool_Acc_Target	0.04447 (0.194)	0.04715 (0.416)	0.0193 (0.454)
WM_Task_2bk_Tool_Median_RT	0.1848 (0.076)	0.02825 (0.674)	0.03077 (0.796)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1624 (0.21)	0.0339 (0.842)	0.0492 (0.654)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1512 (0.034)	0.1253 (0.048)	0.1113 (0.5)
WM_Task_Median_RT	0.1169 (0.24)	0.05786 (0.596)	0.08616 (0.812)
ZygotySR	0 (1)	0 (1)	0 (1)

1200 volumes   100 subjects			
	tfMRI_RELATION		
	AL	tfMRI_SOCIAL	tfMRI_WM
Age_in_Yrs	0.01214 (0.906)	0.04256 (0.542)	0.09008 (0.016)
AngAffect_Unadj	0.03669 (0.264)	0.02435 (0.248)	0.05788 (0.114)
AngAggr_Unadj	0.07522 (0.242)	0.01474 (0.242)	0.03759 (0.584)
AngHostil_Unadj	0.06225 (0.558)	0.03668 (0.594)	0.1695 (0.028)
ASR_Aggr_Raw	0.02169 (0.424)	0.08784 (0.012)	0.04823 (0.82)
ASR_Aggr_T	0.01661 (0.294)	0.07743 (0.022)	0.03442 (0.774)
ASR_Anxd_Pct	0.05737 (0.09)	0.04142 (0.256)	0.02557 (0.476)
ASR_Anxd_Raw	0.07966 (0.084)	0.0402 (0.174)	0.02347 (0.452)
ASR_Attn_Raw	0.04382 (0.17)	0.1412 (p < 0.00017)	0.05458 (0.352)
ASR_Attn_T	0.08033 (0.044)	0.1544 (0.002)	0.1285 (0.02)
ASR_Crit_Raw	0.02086 (0.622)	0.1253 (p < 0.00017)	0.02366 (0.358)
ASR_Extn_Raw	0.08849 (0.18)	0.1614 (0.02)	0.09577 (0.616)

ASR_Extn_T	0.06259 (0.346)	0.1149 (0.026)	0.06817 (0.774)
ASR_Intn_Raw	0.07724 (0.052)	0.03833 (0.19)	0.056 (0.32)
ASR_Intn_T	0.06739 (0.112)	0.03268 (0.068)	0.07111 (0.138)
ASR_Intr_Raw	0.08873 (0.396)	0.1152 (0.106)	0.06226 (0.478)
ASR_Intr_T	0.1137 (0.43)	0.159 (0.092)	0.07863 (0.368)
ASR_Oth_Raw	0.02228 (0.116)	0.0506 (0.006)	0.04256 (0.28)
ASR_Rule_Raw	0.09688 (0.112)	0.2176 (0.044)	0.1074 (0.394)
ASR_Rule_T	0.08084 (0.226)	0.161 (0.008)	0.08913 (0.424)
ASR_Soma_Raw	0.04854 (0.252)	0.0854 (0.036)	0.05369 (0.738)
ASR_Soma_T	0.04068 (0.5)	0.1063 (0.014)	0.04402 (0.838)
ASR_TAO_Sum	0.01705 (0.088)	0.1642 (p < 0.00017)	0.04552 (0.104)
ASR_Thot_Raw	0.07452 (0.414)	0.2928 (p < 0.00017)	0.1132 (0.02)
ASR_Thot_T	0.06875 (0.542)	0.2593 (p < 0.00017)	0.06688 (0.226)
ASR_Totp_Raw	0.03138 (0.092)	0.1188 (p < 0.00017)	0.08196 (0.258)
ASR_Totp_T	0.05343 (0.072)	0.1143 (0.002)	0.05814 (0.308)
ASR_Witd_Raw	0.03434 (0.108)	0.03752 (0.116)	0.06294 (0.016)
ASR_Witd_T	0.03457 (0.11)	0.01616 (0.136)	0.05312 (0.048)
Avg_Weekday_Any_Tobacco_7days	0.07953 (0.548)	0.03511 (0.776)	0.03984 (0.314)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0.06629 (0.706)	0.02871 (0.76)	0.04036 (0.406)
Avg_Weekday_Drinks_7days	0.04776 (0.612)	0.08603 (0.028)	0.02469 (0.952)
Avg_Weekend_Any_Tobacco_7days	0.07371 (0.538)	0.03358 (0.772)	0.06611 (0.472)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0.05512 (0.63)	0.04469 (0.642)	0.05699 (0.446)
Avg_Weekend_Drinks_7days	0.009866 (0.384)	0.1147 (0.134)	0.06119 (0.562)
BMI	0.03337 (0.112)	0.1065 (0.008)	0.07338 (0.066)
BPDiastolic	0.2139 (p < 0.00017)	0.04357 (0.094)	0.01882 (0.182)



BPSystolic	0.2893 (p < 0.00017)	0.1121 (p < 0.00017)	0.1856 (0.07)
CardSort_AgeAdj	0.03072 (0.516)	0.02167 (0.62)	0.06069 (0.77)
CardSort_Unadj	0.01601 (0.554)	0.03299 (0.51)	0.06569 (0.84)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.06255 (0.072)	0.0887 (0.034)	0.1752 (0.024)
DDisc_AUC_40K	0.1184 (0.11)	0.1252 (0.048)	0.0682 (0.214)
DDisc_SV_10yr_200	0.01552 (0.388)	0.08454 (0.032)	0.08388 (0.338)
DDisc_SV_10yr_40K	0.0591 (0.224)	0.1052 (0.216)	0.03447 (0.522)
DDisc_SV_1mo_200	0.05336 (0.108)	0.05907 (0.244)	0.1205 (0.09)
DDisc_SV_1mo_40K	0.03216 (0.788)	0.1502 (0.004)	0.03766 (0.656)
DDisc_SV_1yr_200	0.1791 (0.002)	0.1455 (0.028)	0.254 (0.002)
DDisc_SV_1yr_40K	0.134 (0.122)	0.155 (0.114)	0.03034 (0.822)
DDisc_SV_3yr_200	0.06081 (0.046)	0.1 (0.138)	0.182 (0.032)
DDisc_SV_3yr_40K	0.0935 (0.13)	0.02587 (0.518)	0.06603 (0.246)
DDisc_SV_5yr_200	0.08766 (0.04)	0.03685 (0.12)	0.1698 (0.004)
DDisc_SV_5yr_40K	0.1302 (0.158)	0.07473 (0.158)	0.06861 (0.154)
DDisc_SV_6mo_200	0.1046 (0.036)	0.1131 (0.236)	0.1627 (0.042)
DDisc_SV_6mo_40K	0.08574 (0.244)	0.1549 (0.082)	0.13 (0.104)
Dexterity_AgeAdj	0.1443 (0.016)	0.05399 (0.724)	0.01198 (0.83)
Dexterity_Unadj	0.1248 (0.026)	0.05875 (0.712)	0.009299 (0.936)
DSM_Adh_Raw	0.01812 (0.736)	0.1265 (p < 0.00017)	0.06407 (0.47)
DSM_Adh_T	0.02799 (0.604)	0.1153 (0.004)	0.1129 (0.48)
DSM_Antis_Raw	0.0575 (0.036)	0.1088 (0.014)	0.06168 (0.294)
DSM_Antis_T	0.04875 (0.104)	0.1123 (p < 0.00017)	0.06579 (0.498)

DSM_Anxi_Raw	0.06201 (0.164)	0.07524 (0.034)	0.07232 (0.096)
DSM_Anxi_T	0.05141 (0.188)	0.03798 (0.166)	0.02491 (0.542)
DSM_Avoid_Raw	0.03181 (0.21)	0.03669 (0.224)	0.1008 (0.104)
DSM_Avoid_T	0.01995 (0.266)	0.05016 (0.198)	0.08216 (0.124)
DSM_Depr_Raw	0.02858 (0.424)	0.1307 (0.016)	0.04458 (0.814)
DSM_Depr_T	0.03739 (0.274)	0.1323 (p < 0.00017)	0.02937 (0.73)
DSM_Hype_Raw	0.004218 (0.774)	0.09553 (0.022)	0.08223 (0.45)
DSM_Inat_Raw	0.01005 (0.466)	0.05065 (0.048)	0.1041 (0.19)
DSM_Somp_Raw	0.06203 (0.096)	0.03694 (0.572)	0.05265 (0.646)
DSM_Somp_T	0.08152 (0.07)	0.04395 (0.534)	0.03881 (0.718)
Emotion_Task_Acc	0.08039 (0.25)	0.009465 (1)	0.03878 (0.402)
Emotion_Task_Face_Acc	0.08467 (0.41)	0.05587 (0.858)	0.1712 (0.014)
Emotion_Task_Face_Median_RT	0.04802 (0.796)	0.1921 (0.152)	0.04397 (0.282)
Emotion_Task_Median_RT	0.04581 (0.7)	0.1556 (0.04)	0.03707 (0.396)
Emotion_Task_Shape_Acc	0.09962 (0.196)	0.02653 (0.752)	0.1166 (0.116)
Emotion_Task_Shape_Median_RT	0.04459 (0.384)	0.09319 (0.034)	0.01752 (0.766)
EmotSupp_Unadj	0.02132 (0.208)	0.07858 (0.214)	0.0296 (0.042)
Endurance_AgeAdj	0.03563 (0.08)	0.08182 (0.544)	0.07361 (0.076)
Endurance_Unadj	0.0651 (0.016)	0.1288 (0.204)	0.07884 (0.068)
ER40ANG	0.01714 (0.582)	0.02738 (0.572)	0.01385 (0.086)
ER40FEAR	0.03457 (0.39)	0.03939 (0.822)	0.003818 (0.654)
ER40NOE	0.01792 (0.864)	0.01584 (0.85)	0.04913 (0.192)
ER40SAD	0.02037 (0.2)	0.1374 (0.284)	0.05319 (0.626)
ER40_CRT	0.05677 (0.508)	0.01618 (0.732)	0.08346 (0.686)
ER40_CR	0.06934 (0.238)	0.05017 (0.72)	0.04997 (0.288)

EVA_Denom	0.1206 (0.054)	0.05204 (0.064)	0.0671 (0.106)
FearAffect_Unadj	0.02994 (0.548)	0.04671 (0.108)	0.04522 (0.34)
FearSomat_Unadj	0.04357 (0.332)	0.08338 (0.08)	0.01353 (0.712)
Flanker_AgeAdj	0.02179 (0.292)	0.1192 (0.09)	0.07148 (0.256)
Flanker_Unadj	0.01202 (0.414)	0.1785 (0.032)	0.06528 (0.216)
Friendship_Unadj	0.01749 (0.242)	0.03541 (0.46)	0.1366 (0.072)
GaitSpeed_Comp	0.03449 (0.644)	0.06352 (0.524)	0.1296 (0.098)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.122 (0.016)	0.07611 (0.178)	0.114 (0.05)
Gambling_Task_Perc_Larger	0.01836 (0.882)	0.05993 (0.402)	0.03235 (0.722)
Gambling_Task_Perc_Smaller	0.02017 (0.87)	0.04982 (0.434)	0.03507 (0.714)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.08029 (0.102)	0.07606 (0.238)	0.1126 (0.068)
Gambling_Task_Punish_Perc_Larger	0.02022 (0.666)	0.1043 (0.556)	0.05603 (0.554)
Gambling_Task_Punish_Perc_Smaller	0.01123 (0.702)	0.1189 (0.502)	0.05562 (0.534)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0.1521 (0.002)	0.0701 (0.118)	0.09294 (0.116)
Gambling_Task_Reward_Perc_Larger	0.01213 (0.842)	0.04609 (0.304)	0.0491 (0.766)
Gambling_Task_Reward_Perc_Smaller	0.009314 (0.834)	0.04937 (0.22)	0.04705 (0.772)
Handedness	0.1088 (0.05)	0.03041 (0.51)	0.08602 (0.072)
Height	0.1922 (0.068)	0.3105 (0.012)	0.1544 (0.116)
InstruSupp_Unadj	0.08937 (0.038)	0.138 (0.412)	0.06877 (0.316)
IWRD_RTC	0.06818 (0.048)	0.06626 (0.052)	0.009056 (0.662)
IWRD_TOT	0.005911 (0.716)	0.06205 (0.666)	0.04052 (0.372)
Language_Task_Acc	0.1032 (0.874)	0.082 (0.164)	0.3379 (p < 0.00017)

Language_Task_Math_Acc	0.1219 (0.42)	0.06777 (0.088)	0.2607 (0.008)
Language_Task_Math_Avg_Difficulty_Level	0.07119 (0.25)	0.02045 (0.486)	0.06563 (0.646)
Language_Task_Math_Median_RT	0.08372 (0.068)	0.01101 (0.292)	0.008943 (0.576)
Language_Task_Median_RT	0.02118 (0.336)	0.01857 (0.192)	0.003892 (0.71)
Language_Task_Story_Acc	0.04584 (0.568)	0.05584 (0.358)	0.0364 (0.294)
Language_Task_Story_Avg_Difficulty_Level	0.1891 (0.198)	0.1159 (0.05)	0.2531 (0.014)
Language_Task_Story_Median_RT	0.02207 (0.3)	0.0239 (0.622)	0.01785 (0.246)
LifeSatisf_Unadj	0.0696 (0.122)	0.09753 (0.078)	0.06569 (0.378)
ListSort_AgeAdj	0.1646 (0.034)	0.03038 (0.38)	0.03505 (0.28)
ListSort_Unadj	0.1409 (0.082)	0.06487 (0.202)	0.04368 (0.442)
Loneliness_Unadj	0.01613 (0.452)	0.07368 (0.482)	0.02811 (0.274)
Mars_Errs	0.03686 (0.758)	0.1247 (0.146)	0.158 (0.09)
Mars_Final	0.108 (0.124)	0.04874 (0.084)	0.1264 (0.56)
Mars_Log_Score	0.04938 (0.702)	0.07639 (0.066)	0.1539 (0.622)
MeanPurp_Unadj	0.1018 (0.046)	0.06894 (0.284)	0.1471 (0.016)
MMSE_Score	0.04588 (0.65)	0.01092 (0.788)	0.07589 (0.18)
Noise_Comp	0.04685 (0.114)	0.07697 (0.162)	0.02861 (0.546)
Num_Days_Drank_7days	0.05105 (0.75)	0.1538 (0.006)	0.03577 (0.782)
Num_Days_Used_Any_Tobacco_7days	0.1492 (0.098)	0.04233 (0.552)	0.059 (0.148)
Odor_AgeAdj	0.09198 (0.112)	0.05644 (0.148)	0.09686 (0.232)
Odor_Unadj	0.09311 (0.05)	0.07481 (0.062)	0.1268 (0.074)
PainIntens_RawScore	0.0716 (0.042)	0.125 (0.044)	0.08808 (0.338)
PainInterf_Tscore	0.1079 (0.002)	0.07424 (0.138)	0.03366 (0.818)
PercHostil_Unadj	0.07236 (0.122)	0.1192 (0.164)	0.03118 (0.378)
PercReject_Unadj	0.01723 (0.486)	0.1245 (0.476)	0.02687 (0.35)
PercStress_Unadj	0.07934 (0.022)	0.09608 (0.012)	0.04429 (0.04)

PicSeq_AgeAdj	0.02065 (0.404)	0.0637 (0.44)	0.117 (0.04)
PicSeq_Unadj	0.01826 (0.314)	0.07916 (0.298)	0.1164 (0.036)
PicVocab_AgeAdj	0.09572 (0.092)	0.04504 (0.158)	0.1771 (0.01)
PicVocab_Unadj	0.07292 (0.422)	0.02039 (0.366)	0.1701 (0.014)
PMAT24_A_CR	0.09585 (0.086)	0.2216 (0.024)	0.09789 (0.112)
PMAT24_A_RTcr	0.1982 (0.004)	0.1563 (0.032)	0.098 (0.214)
PMAT24_A_SI	0.07265 (0.1)	0.2082 (0.012)	0.1577 (0.038)
PosAffect_Unadj	0.1752 (0.002)	0.01248 (0.562)	0.1165 (0.13)
ProcSpeed_AgeAdj	0.03139 (0.998)	0.1146 (0.646)	0.04754 (0.966)
ProcSpeed_Unadj	0.03193 (0.992)	0.1366 (0.294)	0.03229 (0.988)
PSQI_AmtSleep	0.05636 (0.272)	0.07153 (0.218)	0.06081 (0.154)
PSQI_BadDream	0.07891 (0.256)	0.02016 (0.772)	0.01353 (0.408)
PSQI_Bathroom	0.07599 (0.116)	0.04091 (0.2)	0.07185 (0.012)
PSQI_BedPtnrRmate	0.1802 (0.016)	0.173 (0.206)	0.1465 (0.008)
PSQI_BedTime	0.06595 (0.71)	0.07551 (0.784)	0.04831 (0.294)
PSQI_Breathe	0.02915 (0.19)	0.07332 (0.398)	0.007115 (0.022)
PSQI_Comp1	0.06737 (0.548)	0.08784 (0.028)	0.05887 (0.17)
PSQI_Comp2	0.04498 (0.192)	0.09513 (0.094)	0.1302 (0.29)
PSQI_Comp3	0.1513 (0.072)	0.07393 (0.198)	0.1352 (0.036)
PSQI_Comp4	0.04539 (0.118)	0.07014 (0.76)	0.03035 (0.694)
PSQI_Comp5	0.05977 (0.562)	0.1812 (0.008)	0.03419 (0.43)
PSQI_Comp6	0.004466 (0.73)	0.02372 (0.2)	0.06534 (0.198)
PSQI_Comp7	0.05151 (0.408)	0.07304 (0.17)	0.03932 (0.37)
PSQI_DayEnthusiasm	0.04038 (0.844)	0.161 (p < 0.00017)	0.06822 (0.034)
PSQI_DayStayAwake	0.05174 (0.434)	0.07428 (0.182)	0.06859 (0.394)
PSQI_GetUpTime	0.06605 (0.92)	0.02945 (0.418)	0.00507 (0.756)
PSQI_Latency30Min	0.05993 (0.104)	0.07279 (0.222)	0.1261 (0.2)

PSQI_Min2Asleep	0.06567 (0.28)	0.03287 (0.318)	0.1586 (0.654)
PSQI_Other	0.08015 (0.068)	0.008963 (0.79)	0.0126 (0.538)
PSQI_Pain	0.09646 (0.142)	0.0614 (0.086)	0.05815 (0.224)
PSQI_Quality	0.07007 (0.546)	0.05459 (0.044)	0.0663 (0.1)
PSQI_Score	0.09065 (0.146)	0.09254 (0.066)	0.08345 (0.082)
PSQI_SleepMeds	0.01258 (0.688)	0.0256 (0.198)	0.05439 (0.286)
PSQI_Snore	0.2115 (0.504)	0.08723 (0.32)	0.03168 (0.594)
PSQI_TooCold	0.08797 (0.134)	0.007654 (0.936)	0.1633 (0.004)
PSQI_TooHot	0.234 (0.122)	0.008433 (0.468)	0.1591 (0.442)
PSQI_WakeUp	0.02583 (0.63)	0.1016 (0.008)	0.0456 (0.438)
Race	0.08639 (0.166)	0.1636 (0.006)	0.04666 (0.188)
ReadEng_AgeAdj	0.132 (0.408)	0.1517 (0.028)	0.1469 (0.392)
ReadEng_Unadj	0.1229 (0.47)	0.1287 (0.092)	0.1479 (0.336)
Relational_Task_Acc	0.09846 (0.298)	0.09252 (0.144)	0.06101 (0.222)
Relational_Task_Match_Acc	0.1571 (0.088)	0.1034 (0.792)	0.09426 (0.006)
Relational_Task_Match_Median_RT	0.2621 (0.004)	0.061 (0.222)	0.1106 (0.364)
Relational_Task_Median_RT	0.2271 (p < 0.00017)	0.0654 (0.098)	0.1236 (0.284)
Relational_Task_Rel_Acc	0.06701 (0.226)	0.08911 (0.042)	0.01846 (0.698)
Relational_Task_Rel_Median_RT	0.1906 (p < 0.00017)	0.04918 (0.046)	0.1366 (0.144)
Sadness_Unadj	0.0645 (0.066)	0.05752 (0.042)	0.05891 (0.02)
SCPT_FN	0.03308 (0.364)	0.02787 (0.52)	0.05361 (0.17)
SCPT_FP	0.05778 (0.872)	0.153 (0.19)	0.05104 (0.384)
SCPT_LRNR	0.04885 (0.252)	0.059 (0.538)	0.1203 (0.026)
SCPT_SEN	0.03442 (0.374)	0.03786 (0.474)	0.03356 (0.268)
SCPT_SPEC	0.07826 (0.784)	0.1744 (0.134)	0.05078 (0.38)
SCPT_TN	0.06383 (0.868)	0.1566 (0.184)	0.04705 (0.402)
SCPT_TPRT	0.05763 (0.404)	0.001832 (0.668)	0.02898 (0.284)

SCPT_TP	0.03908 (0.274)	0.04228 (0.408)	0.03995 (0.226)
SelfEff_Unadj	0.229 (0.002)	0.173 (0.008)	0.09538 (0.08)
Social_Task_Perc_Random	0.03736 (0.98)	0.1322 (0.218)	0.01562 (0.798)
Social_Task_Perc_TOM	0.01778 (0.79)	0.0715 (0.452)	0.03931 (0.238)
Social_Task_Perc_Unsure	0.06321 (0.558)	0.1284 (0.072)	0.1144 (0.054)
Social_Task_Random_Perc_Random	0.06195 (0.922)	0.0937 (0.176)	0.06899 (0.076)
Social_Task_Random_Perc_TOM	0.009727 (0.406)	0.04774 (0.192)	0.02696 (0.092)
Social_Task_Random_Perc_Unsure	0.07298 (0.73)	0.09139 (0.06)	0.05078 (0.46)
Social_Task_TOM_Median_RT_TOM	0.1636 (0.03)	0.011 (0.818)	0.03065 (0.314)
Social_Task_TOM_Perc_Random	0.01766 (0.708)	0.02305 (0.28)	0.01352 (0.502)
Social_Task_TOM_Perc_TOM	0.008293 (0.79)	0.06658 (0.138)	0.03758 (0.076)
Social_Task_TOM_Perc_Unsure	0.02822 (0.436)	0.105 (0.122)	0.06689 (0.164)
SSAGA_Alc_D4_Dp_Sx	0.05566 (0.87)	0.04025 (0.52)	0.02231 (0.69)
SSAGA_BMICatHeaviest	0.0598 (0.58)	0.112 (0.148)	0.09384 (0.128)
SSAGA_BMICat	0.06093 (0.334)	0.2121 (p < 0.00017)	0.06128 (0.104)
SSAGA_ChildhoodConduct	0.1079 (0.502)	0.03251 (0.3)	0.2091 (0.022)
SSAGA_Depressive_Sx	0.008432 (0.734)	0.006579 (0.18)	0.0666 (0.666)
SSAGA_Educ	0.1011 (0.54)	0.1007 (0.9)	0.1503 (0.012)
SSAGA_Income	0.04089 (0.084)	0.1117 (0.08)	0.1118 (0.064)
SSAGA_Mj_Times_Used	0.06121 (0.544)	0.0359 (0.416)	0.01548 (0.716)
SSAGA_TB_Smoking_History	0.01986 (0.45)	0.03972 (0.196)	0.01797 (0.73)
SSAGA_Times_Used_Hallucinogens	0.01804 (0.358)	0.08683 (0.08)	0.1216 (0.424)
SSAGA_Times_Used_Illicits	0.01478 (0.452)	0.02384 (0.424)	0.1538 (p < 0.00017)
Strength_AgeAdj	0.3269 (p < 0.00017)	0.3114 (p < 0.00017)	0.1602 (0.086)
Strength_Unadj	0.2997 (0.002)	0.2816 (p < 0.00017)	0.1481 (0.096)
Taste_AgeAdj	0.04466 (0.706)	0.1039 (0.106)	0.08495 (0.082)
Taste_Unadj	0.04622 (0.682)	0.1203 (0.072)	0.114 (0.05)
Times_Used_Any_Tobacco_Today	0.04506 (0.466)	0.01954 (0.55)	0.0445 (0.386)
Total_Any_Tobacco_7days	0.1178 (0.376)	0.05906 (0.656)	0.06019 (0.236)

Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0.0706 (0.664)	0.02899 (0.728)	0.05462 (0.242)
Total_Drinks_7days	0.02913 (0.614)	0.1286 (0.012)	0.04735 (0.738)
VSPLOT_CRTE	0.108 (0.302)	0.0885 (0.146)	0.01056 (0.178)
VSPLOT_OFF	0.08917 (0.082)	0.2182 (0.002)	0.0995 (0.418)
VSPLOT_TC	0.09412 (0.012)	0.1105 (0.086)	0.01845 (0.694)
Weight	0.1536 (0.096)	0.3117 (p < 0.00017)	0.2063 (0.002)
WM_Task_Obk_Acc	0.1161 (0.196)	0.1133 (0.018)	0.1422 (0.17)
WM_Task_Obk_Body_Acc	0.106 (0.478)	0.07115 (0.136)	0.16 (0.062)
WM_Task_Obk_Body_Acc_Nontarget	0.1328 (0.356)	0.06346 (0.236)	0.08652 (0.364)
WM_Task_Obk_Body_Acc_Target	0.06671 (0.476)	0.1122 (0.056)	0.1762 (0.014)
WM_Task_Obk_Body_Median_RT	0.1087 (0.524)	0.0189 (0.36)	0.05853 (0.768)
WM_Task_Obk_Body_Median_RT_Nontarget	0.09496 (0.532)	0.04721 (0.178)	0.06155 (0.868)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.06914 (0.314)	0.09926 (0.058)	0.07365 (0.194)
WM_Task_Obk_Face_ACC_Nontarget	0.07279 (0.336)	0.09953 (0.122)	0.07847 (0.078)
WM_Task_Obk_Face_Acc_Target	0.0304 (0.184)	0.08067 (0.024)	0.007522 (0.484)
WM_Task_Obk_Face_Median_RT	0.02683 (0.522)	0.03117 (0.706)	0.04843 (0.418)
WM_Task_Obk_Face_Median_RT_Nontarget	0.02068 (0.556)	0.03998 (0.692)	0.0565 (0.47)
WM_Task_Obk_Face_Median_RT_Target	0.04676 (0.192)	0.07934 (0.498)	0.02305 (0.336)
WM_Task_Obk_Median_RT	0.06641 (0.824)	0.03551 (0.342)	0.04271 (0.762)
WM_Task_Obk_Place_Acc	0.09654 (0.2)	0.05784 (0.884)	0.1933 (0.032)
WM_Task_Obk_Place_Acc_Nontarget	0.08135 (0.072)	0.04639 (0.66)	0.1588 (0.074)
WM_Task_Obk_Place_Acc_Target	0.1218 (0.416)	0.04785 (0.96)	0.08418 (0.156)
WM_Task_Obk_Place_Median_RT	0.07101 (0.666)	0.08002 (0.262)	0.0577 (0.558)
WM_Task_Obk_Place_Median_RT_Nontarget	0.07937 (0.686)	0.04079 (0.458)	0.05054 (0.504)



WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.1223 (0.082)	0.08583 (0.282)	0.1226 (0.112)
WM_Task_Obk_Tool_Acc_Nontarget	0.07852 (0.344)	0.06127 (0.464)	0.08112 (0.446)
WM_Task_Obk_Tool_Acc_Target	0.1441 (0.152)	0.06865 (0.156)	0.09239 (0.038)
WM_Task_Obk_Tool_Median_RT	0.02617 (0.71)	0.05215 (0.184)	0.06455 (0.33)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.03556 (0.564)	0.04828 (0.164)	0.0585 (0.386)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.1401 (0.03)	0.1896 (0.012)	0.1742 (0.002)
WM_Task_2bk_Body_Acc	0.09196 (0.134)	0.06932 (0.18)	0.007283 (0.732)
WM_Task_2bk_Body_Acc_Nontarget	0.0965 (0.034)	0.1334 (0.104)	0.01629 (0.786)
WM_Task_2bk_Body_Acc_Target	0.02137 (0.808)	0.04417 (0.29)	0.02736 (0.244)
WM_Task_2bk_Body_Median_RT	0.0114 (0.274)	0.1831 (p < 0.00017)	0.1268 (0.05)
WM_Task_2bk_Body_Median_RT_Nontarget	0.01091 (0.15)	0.1976 (0.006)	0.1168 (0.066)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.09451 (0.188)	0.1973 (0.088)	0.1024 (0.298)
WM_Task_2bk_Face_Acc_Nontarget	0.04428 (0.31)	0.1364 (0.352)	0.07869 (0.49)
WM_Task_2bk_Face_Acc_Target	0.1935 (0.006)	0.09467 (0.118)	0.1021 (0.084)
WM_Task_2bk_Face_Median_RT	0.03661 (0.682)	0.07067 (0.308)	0.1373 (0.254)
WM_Task_2bk_Face_Median_RT_Nontarget	0.02479 (0.786)	0.05503 (0.298)	0.1119 (0.4)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.03008 (0.562)	0.1089 (0.17)	0.1335 (0.144)
WM_Task_2bk_Place_Acc	0.1187 (0.27)	0.07836 (0.48)	0.1082 (0.006)
WM_Task_2bk_Place_Acc_Nontarget	0.06908 (0.61)	0.1225 (0.032)	0.1792 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.05131 (0.094)	0.01343 (0.774)	0.01709 (0.17)
WM_Task_2bk_Place_Median_RT	0.06562 (0.368)	0.02688 (0.796)	0.1294 (0.056)
WM_Task_2bk_Place_Median_RT_Nontarget	0.07784 (0.338)	0.03162 (0.896)	0.1729 (0.016)

WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.07629 (0.162)	0.0871 (0.284)	0.2023 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.02743 (0.342)	0.1021 (0.454)	0.202 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Target	0.1141 (0.094)	0.02412 (0.484)	0.07345 (0.38)
WM_Task_2bk_Tool_Median_RT	0.05057 (0.462)	0.06604 (0.49)	0.07639 (0.348)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.07318 (0.282)	0.06222 (0.556)	0.08081 (0.516)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.152 (0.026)	0.1391 (0.04)	0.2065 (0.004)
WM_Task_Median_RT	0.03895 (0.84)	0.03386 (0.676)	0.09213 (0.376)
ZygotySR	0 (1)	0 (1)	0 (1)

176 volumes | 232 subjects

176 volumes   All subjects			
	allrest	allscans	alltask
Age_in_Yrs	0.2153 (p < 0.00017)	0.3941 (p < 0.00017)	0.3658 (p < 0.00017)
AngAffect_Unadj	0.04119 (0.334)	0.01919 (0.976)	0.02008 (0.996)
AngAggr_Unadj	0.08819 (0.072)	0.1869 (p < 0.00017)	0.1749 (p < 0.00017)
AngHostil_Unadj	0.06987 (0.682)	0.0343 (0.972)	0.05533 (0.898)
ASR_Aggr_Raw	0.02366 (0.846)	0.09187 (0.208)	0.1048 (0.23)
ASR_Aggr_T	0.0443 (0.788)	0.08612 (0.398)	0.07363 (0.666)
ASR_Anxd_Pct	0.01661 (0.834)	0.02171 (0.946)	0.03189 (0.85)
ASR_Anxd_Raw	0.02503 (0.99)	0.03974 (0.774)	0.06166 (0.434)
ASR_Attn_Raw	0.03241 (0.984)	0.01946 (0.988)	0.02401 (0.986)
ASR_Attn_T	0.07754 (0.554)	0.05062 (0.866)	0.05782 (0.818)
ASR_Crit_Raw	0.04132 (0.414)	0.06638 (0.222)	0.07549 (0.306)
ASR_Extn_Raw	0.05522 (0.938)	0.215 (p < 0.00017)	0.2207 (p < 0.00017)
ASR_Extn_T	0.0476 (0.984)	0.1903 (p < 0.00017)	0.1991 (p < 0.00017)
ASR_Intn_Raw	0.04373 (0.784)	0.05171 (0.832)	0.06455 (0.758)
ASR_Intn_T	0.04719 (0.604)	0.05177 (0.93)	0.07147 (0.918)
ASR_Intr_Raw	0.02605 (1)	0.1462 (p < 0.00017)	0.1402 (p < 0.00017)
ASR_Intr_T	0.01152 (1)	0.1215 (p < 0.00017)	0.1316 (p < 0.00017)
ASR_Oth_Raw	0.04012 (0.234)	0.0347 (0.896)	0.0545 (0.814)
ASR_Rule_Raw	0.06852 (0.1)	0.2902 (p < 0.00017)	0.3067 (p < 0.00017)
ASR_Rule_T	0.02443 (0.68)	0.1869 (p < 0.00017)	0.2013 (p < 0.00017)
ASR_Soma_Raw	0.0332 (0.896)	0.1195 (p < 0.00017)	0.1023 (0.002)

ASR_Soma_T	0.02326 (0.876)	0.09543 (p < 0.00017)	0.09626 (0.006)
ASR_TAO_Sum	0.04457 (0.752)	0.06437 (0.8)	0.06603 (0.836)
ASR_Thot_Raw	0.03078 (0.872)	0.1258 (0.078)	0.1338 (0.06)
ASR_Thot_T	0.05069 (0.44)	0.1438 (0.046)	0.1438 (0.068)
ASR_Totp_Raw	0.02849 (0.966)	0.04752 (0.878)	0.05577 (0.782)
ASR_Totp_T	0.03218 (0.98)	0.06753 (0.806)	0.07628 (0.716)
ASR_Witd_Raw	0.02956 (0.474)	0.09118 (0.014)	0.1103 (0.022)
ASR_Witd_T	0.03487 (0.206)	0.06776 (0.1)	0.07158 (0.088)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1411 (p < 0.00017)	0.1323 (p < 0.00017)	0.1248 (p < 0.00017)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.1049 (0.004)	0.1591 (p < 0.00017)	0.1466 (p < 0.00017)
BMI	0.2416 (p < 0.00017)	0.4517 (p < 0.00017)	0.4261 (p < 0.00017)
BPDiastolic	0.1618 (0.004)	0.1803 (p < 0.00017)	0.1442 (p < 0.00017)
BPSystolic	0.09334 (0.108)	0.428 (p < 0.00017)	0.4241 (p < 0.00017)
CardSort_AgeAdj	0.1738 (p < 0.00017)	0.09033 (0.458)	0.07184 (0.762)
CardSort_Unadj	0.1968 (p < 0.00017)	0.1207 (0.522)	0.08549 (0.886)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.06821 (0.096)	0.2178 (p < 0.00017)	0.2143 (p < 0.00017)

DDisc_AUC_40K	0.1064 (p < 0.00017)	0.1878 (p < 0.00017)	0.179 (p < 0.00017)
DDisc_SV_10yr_200	0.08733 (0.358)	0.1425 (p < 0.00017)	0.1043 (0.004)
DDisc_SV_10yr_40K	0.1251 (p < 0.00017)	0.1951 (p < 0.00017)	0.1675 (p < 0.00017)
DDisc_SV_1mo_200	0.08224 (0.318)	0.1304 (p < 0.00017)	0.143 (p < 0.00017)
DDisc_SV_1mo_40K	0.01146 (0.428)	0.08872 (0.026)	0.1047 (0.026)
DDisc_SV_1yr_200	0.09342 (0.002)	0.2477 (p < 0.00017)	0.2362 (p < 0.00017)
DDisc_SV_1yr_40K	0.09831 (0.026)	0.1261 (p < 0.00017)	0.1394 (p < 0.00017)
DDisc_SV_3yr_200	0.07127 (0.034)	0.237 (p < 0.00017)	0.231 (p < 0.00017)
DDisc_SV_3yr_40K	0.1458 (p < 0.00017)	0.1677 (p < 0.00017)	0.1499 (p < 0.00017)
DDisc_SV_5yr_200	0.08807 (0.06)	0.1884 (p < 0.00017)	0.1613 (p < 0.00017)
DDisc_SV_5yr_40K	0.07109 (0.004)	0.1969 (p < 0.00017)	0.1726 (p < 0.00017)
DDisc_SV_6mo_200	0.08027 (0.034)	0.07215 (p < 0.00017)	0.05699 (p < 0.00017)
DDisc_SV_6mo_40K	0.1092 (0.038)	0.1165 (p < 0.00017)	0.1308 (p < 0.00017)
Dexterity_AgeAdj	0.1423 (p < 0.00017)	0.1279 (0.434)	0.1133 (0.726)
Dexterity_Unadj	0.1543 (p < 0.00017)	0.1454 (0.172)	0.1367 (0.472)
DSM_Adh_Raw	0.08525 (0.272)	0.02129 (0.95)	0.02443 (0.856)
DSM_Adh_T	0.1285 (0.01)	0.05923 (0.808)	0.08001 (0.506)
DSM_Antis_Raw	0.1081 (0.004)	0.2904 (p < 0.00017)	0.3023 (p < 0.00017)
DSM_Antis_T	0.04634 (0.494)	0.2043 (p < 0.00017)	0.2243 (p < 0.00017)
DSM_Anxi_Raw	0.04054 (0.398)	0.06697 (0.254)	0.08935 (0.06)
DSM_Anxi_T	0.01857 (0.806)	0.04382 (0.47)	0.05459 (0.382)
DSM_Avoid_Raw	0.02489 (0.784)	0.05008 (0.498)	0.06521 (0.386)
DSM_Avoid_T	0.03298 (0.746)	0.04604 (0.392)	0.05249 (0.326)
DSM_Depr_Raw	0.03249 (0.926)	0.1104 (0.052)	0.0874 (0.212)
DSM_Depr_T	0.02458 (0.928)	0.08213 (0.034)	0.06362 (0.118)

DSM_Hype_Raw	0.1357 (0.028)	0.03864 (0.172)	0.06902 (0.06)
DSM_Inat_Raw	0.04031 (0.998)	0.006392 (1)	0.005647 (1)
DSM_Somp_Raw	0.07031 (0.22)	0.09943 (0.02)	0.08466 (0.056)
DSM_Somp_T	0.05134 (0.668)	0.06486 (0.014)	0.06865 (0.022)
Emotion_Task_Acc	0.136 (0.056)	0.1729 (p < 0.00017)	0.1605 (p < 0.00017)
Emotion_Task_Face_Acc	0.1091 (0.668)	0.08045 (1)	0.04934 (1)
Emotion_Task_Face_Median_RT	0.09707 (0.08)	0.0914 (0.806)	0.09432 (0.85)
Emotion_Task_Median_RT	0.1158 (0.046)	0.1008 (0.362)	0.1185 (0.324)
Emotion_Task_Shape_Acc	0.1259 (0.036)	0.1326 (0.002)	0.1323 (0.006)
Emotion_Task_Shape_Median_RT	0.095 (0.12)	0.08285 (0.224)	0.08681 (0.2)
EmotSupp_Unadj	0.01021 (0.098)	0.01918 (0.39)	0.03255 (0.446)
Endurance_AgeAdj	0.1563 (p < 0.00017)	0.238 (p < 0.00017)	0.2291 (p < 0.00017)
Endurance_Unadj	0.1697 (p < 0.00017)	0.2621 (p < 0.00017)	0.2576 (p < 0.00017)
ER40ANG	0.05035 (0.706)	0.03138 (0.99)	0.0355 (0.962)
ER40FEAR	0.1483 (p < 0.00017)	0.05318 (0.924)	0.03784 (0.936)
ER40NOE	0.08608 (0.896)	0.005195 (1)	0.007385 (1)
ER40SAD	0.02466 (0.624)	0.01273 (1)	0.01579 (1)
ER40_CRT	0.03704 (0.266)	0.05121 (0.498)	0.06054 (0.658)
ER40_CR	0.04088 (0.858)	0.02165 (0.916)	0.01512 (0.938)
EVA_Denom	0.05215 (0.02)	0.03399 (0.882)	0.04638 (0.748)
FearAffect_Unadj	0.03386 (0.848)	0.07473 (p < 0.00017)	0.0744 (0.006)
FearSomat_Unadj	0.1663 (p < 0.00017)	0.1122 (0.002)	0.1008 (0.01)
Flanker_AgeAdj	0.179 (p < 0.00017)	0.09506 (0.008)	0.1067 (0.01)
Flanker_Unadj	0.2221 (p < 0.00017)	0.1364 (p < 0.00017)	0.1451 (p < 0.00017)
Friendship_Unadj	0.02483 (0.332)	0.07295 (0.214)	0.08573 (0.08)

GaitSpeed_Comp	0.06984 (0.046)	0.1761 (0.01)	0.1946 (p < 0.00017)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.04285 (0.03)	0.1617 (p < 0.00017)	0.1756 (p < 0.00017)
Gambling_Task_Perc_Larger	0.06596 (0.906)	0.04644 (1)	0.0355 (1)
Gambling_Task_Perc_Smaller	0.07406 (0.816)	0.03693 (1)	0.04082 (0.998)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.06407 (0.004)	0.1961 (p < 0.00017)	0.2076 (p < 0.00017)
Gambling_Task_Punish_Perc_Larger	0.0843 (0.278)	0.09188 (0.838)	0.08599 (0.694)
Gambling_Task_Punish_Perc_Smaller	0.08916 (0.228)	0.09561 (0.798)	0.07074 (0.84)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.06442 (0.272)	0.0232 (1)	0.02793 (1)
Gambling_Task_Reward_Perc_Smaller	0.06842 (0.198)	0.02823 (1)	0.02722 (1)
Handedness	0.04938 (0.016)	0.1869 (p < 0.00017)	0.1949 (p < 0.00017)
Height	0.2778 (p < 0.00017)	0.57 (p < 0.00017)	0.5731 (p < 0.00017)
InstruSupp_Unadj	0.02056 (0.454)	0.06683 (0.012)	0.07425 (0.012)
IWRD_RTC	0.01926 (0.404)	0.07383 (p < 0.00017)	0.05113 (0.01)
IWRD_TOT	0.09173 (0.07)	0.05723 (0.292)	0.0527 (0.346)
Language_Task_Acc	0.1776 (0.006)	0.281 (p < 0.00017)	0.2828 (p < 0.00017)
Language_Task_Math_Acc	0.1077 (0.008)	0.2726 (p < 0.00017)	0.2748 (p < 0.00017)
Language_Task_Math_Avg_Difficulty_Level	0.2013 (p < 0.00017)	0.1723 (p < 0.00017)	0.1811 (0.01)
Language_Task_Math_Median_RT	0.03817 (0.328)	0.01507 (0.34)	0.02289 (0.244)
Language_Task_Median_RT	0.08626 (p < 0.00017)	0.06759 (0.03)	0.05925 (0.102)
Language_Task_Story_Acc	0.137 (0.87)	0.1562 (p < 0.00017)	0.1744 (p < 0.00017)
Language_Task_Story_Avg_Difficulty_Level	0.138 (0.002)	0.3499 (p < 0.00017)	0.3598 (p < 0.00017)

Language_Task_Story_Median_RT	0.1008 (p < 0.00017)	0.04131 (0.94)	0.0432 (0.96)
LifeSatisf_Unadj	0.05776 (0.234)	0.1263 (0.064)	0.1059 (0.338)
ListSort_AgeAdj	0.1725 (0.002)	0.1885 (p < 0.00017)	0.1933 (0.006)
ListSort_Unadj	0.1781 (p < 0.00017)	0.2085 (p < 0.00017)	0.2136 (p < 0.00017)
Loneliness_Unadj	0.03895 (0.298)	0.1187 (0.002)	0.1021 (0.008)
Mars_Errs	0.09917 (0.048)	0.02477 (0.708)	0.02541 (0.554)
Mars_Final	0.105 (0.276)	0.1857 (p < 0.00017)	0.1897 (p < 0.00017)
Mars_Log_Score	0.06057 (0.984)	0.1994 (p < 0.00017)	0.2225 (p < 0.00017)
MeanPurp_Unadj	0.1475 (p < 0.00017)	0.08809 (0.012)	0.09097 (0.042)
MMSE_Score	0.1182 (0.788)	0.06146 (0.976)	0.1015 (0.796)
Noise_Comp	0.05838 (0.01)	0.026 (0.564)	0.02065 (0.494)
Num_Days_Drank_7days	0.1936 (p < 0.00017)	0.1123 (p < 0.00017)	0.08954 (p < 0.00017)
Num_Days_Used_Any_Tobacco_7days	0 (1)	0.07971 (0.138)	0.08484 (0.094)
Odor_AgeAdj	0.04612 (0.878)	0.1429 (0.012)	0.1561 (0.004)
Odor_Unadj	0.0557 (0.948)	0.1443 (0.012)	0.1585 (0.008)
PainIntens_RawScore	0.01234 (0.134)	0.1132 (p < 0.00017)	0.1118 (0.002)
PainInterf_Tscore	0.04829 (0.024)	0.04693 (0.29)	0.03663 (0.406)
PercHostil_Unadj	0.05114 (0.85)	0.005093 (0.924)	0.01367 (0.856)
PercReject_Unadj	0.1435 (p < 0.00017)	0.02837 (0.022)	0.02591 (0.026)
PercStress_Unadj	0.052 (0.998)	0.05725 (0.286)	0.07185 (0.178)
PicSeq_AgeAdj	0.0795 (p < 0.00017)	0.03874 (0.042)	0.04147 (0.05)
PicSeq_Unadj	0.06713 (p < 0.00017)	0.06032 (0.002)	0.05256 (0.014)
PicVocab_AgeAdj	0.09643 (p < 0.00017)	0.3148 (p < 0.00017)	0.311 (p < 0.00017)
PicVocab_Unadj	0.0551 (p < 0.00017)	0.2551 (p < 0.00017)	0.2648 (p < 0.00017)
PMAT24_A_CR	0.1372 (p < 0.00017)	0.2894 (p < 0.00017)	0.2819 (p < 0.00017)



PMAT24_A_RTCR	0.06226 (0.042)	0.1379 (0.036)	0.1641 (0.01)
PMAT24_A_SI	0.1079 (0.042)	0.2455 (p < 0.00017)	0.2465 (p < 0.00017)
PosAffect_Unadj	0.0795 (0.202)	0.06952 (0.006)	0.05999 (0.034)
ProcSpeed_AgeAdj	0.07357 (0.898)	0.1388 (0.51)	0.1487 (0.176)
ProcSpeed_Unadj	0.04516 (0.95)	0.1701 (0.578)	0.1944 (0.118)
PSQI_AmtSleep	0.09112 (0.062)	0.03725 (0.978)	0.03712 (0.988)
PSQI_BadDream	0.07194 (0.18)	0.04679 (0.196)	0.04204 (0.278)
PSQI_Bathroom	0.1521 (p < 0.00017)	0.1444 (0.004)	0.08331 (0.28)
PSQI_BedPtnrRmate	0.04957 (0.618)	0.1294 (0.068)	0.1142 (0.186)
PSQI_BedTime	0.1216 (0.114)	0.1044 (0.072)	0.1078 (0.144)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.02368 (0.254)	0.09816 (0.178)	0.1071 (0.082)
PSQI_Comp2	0.03876 (0.1)	0.01778 (0.994)	0.0199 (0.99)
PSQI_Comp3	0.1245 (0.152)	0.1211 (0.53)	0.1315 (0.482)
PSQI_Comp4	0.03024 (0.678)	0.01269 (0.986)	0.01718 (0.978)
PSQI_Comp5	0.05176 (0.364)	0.03924 (0.99)	0.03355 (0.994)
PSQI_Comp6	0 (1)	0 (1)	0 (1)
PSQI_Comp7	0.0265 (0.986)	0.0173 (0.976)	0.01528 (0.95)
PSQI_DayEnthusiasm	0.02293 (1)	0.01083 (0.998)	0.0227 (0.992)
PSQI_DayStayAwake	0 (1)	0.1037 (0.11)	0.0649 (0.224)
PSQI_GetUpTime	0.0774 (0.674)	0.07467 (0.778)	0.08221 (0.716)
PSQI_Latency30Min	0.05537 (0.266)	0.008591 (0.996)	0.009637 (0.996)
PSQI_Min2Asleep	0.02115 (0.618)	0.03704 (0.322)	0.03913 (0.436)
PSQI_Other	0.04224 (0.168)	0.002093 (0.646)	0.00345 (0.432)
PSQI_Pain	0 (1)	0.03665 (0.2)	0.02252 (0.188)
PSQI_Quality	0.03008 (0.22)	0.1002 (0.096)	0.1048 (0.062)

PSQI_Score	0.02529 (0.442)	0.03934 (0.62)	0.0543 (0.482)
PSQI_SleepMeds	0 (1)	0 (1)	0.0005779 (p < 0.00017)
PSQI_Snore	0 (1)	0 (1)	0 (1)
PSQI_TooCold	0.06198 (0.584)	0.0296 (0.914)	0.03248 (0.928)
PSQI_TooHot	0.1063 (0.02)	0.03389 (0.298)	0.06987 (0.032)
PSQI_WakeUp	0.02394 (0.848)	0.05943 (0.034)	0.06543 (0.006)
Race	0 (1)	0.02709 (0.002)	0.06005 (0.004)
ReadEng_AgeAdj	0.116 (0.01)	0.2675 (p < 0.00017)	0.2621 (p < 0.00017)
ReadEng_Unadj	0.1309 (0.004)	0.2734 (p < 0.00017)	0.2522 (p < 0.00017)
Relational_Task_Acc	0.1159 (0.01)	0.3145 (p < 0.00017)	0.2861 (p < 0.00017)
Relational_Task_Match_Acc	0.1569 (0.01)	0.3095 (p < 0.00017)	0.3026 (p < 0.00017)
Relational_Task_Match_Median_RT	0.05892 (0.454)	0.1738 (p < 0.00017)	0.165 (p < 0.00017)
Relational_Task_Median_RT	0.08902 (p < 0.00017)	0.1315 (p < 0.00017)	0.1344 (p < 0.00017)
Relational_Task_Rel_Acc	0.09573 (0.206)	0.2173 (0.01)	0.2004 (0.032)
Relational_Task_Rel_Median_RT	0.09697 (p < 0.00017)	0.07513 (0.152)	0.09832 (0.054)
Sadness_Unadj	0.03514 (0.996)	0.1089 (p < 0.00017)	0.1155 (0.002)
SCPT_FN	0.02929 (0.754)	0.04466 (0.586)	0.0451 (0.64)
SCPT_FP	0.04402 (0.93)	0.08843 (p < 0.00017)	0.1106 (p < 0.00017)
SCPT_LRNR	0.0462 (0.314)	0.007534 (0.996)	0.0116 (0.98)
SCPT_SEN	0.03019 (0.71)	0.04384 (0.584)	0.04884 (0.594)
SCPT_SPEC	0.05285 (0.874)	0.09177 (p < 0.00017)	0.1087 (p < 0.00017)
SCPT_TN	0.04322 (0.918)	0.0978 (p < 0.00017)	0.1052 (p < 0.00017)
SCPT_TPRT	0.01344 (0.884)	0.08726 (0.196)	0.09263 (0.172)
SCPT_TP	0.0316 (0.724)	0.04758 (0.522)	0.04461 (0.644)
SelfEff_Unadj	0.185 (0.076)	0.0923 (0.148)	0.1217 (p < 0.00017)

Social_Task_Perc_Random	0.03958 (0.458)	0.02057 (0.626)	0.01542 (0.738)
Social_Task_Perc_TOM	0.03238 (0.204)	0.1216 (0.882)	0.1055 (0.986)
Social_Task_Perc_Unsure	0.0992 (p < 0.00017)	0.05908 (0.658)	0.06179 (0.782)
Social_Task_Random_Perc_Random	0.1206 (0.008)	0.0294 (0.558)	0.03047 (0.59)
Social_Task_Random_Perc_TOM	0 (1)	0.0345 (0.164)	0.03799 (0.104)
Social_Task_Random_Perc_Unsure	0.06861 (0.002)	0.01082 (0.67)	0.01003 (0.744)
Social_Task_TOM_Median_RT_TOM	0.1103 (0.002)	0.1379 (p < 0.00017)	0.1013 (0.006)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.04394 (0.288)	0.07363 (0.438)	0.08876 (0.332)
Social_Task_TOM_Perc_Unsure	0 (1)	0.02747 (0.026)	0.009588 (0.03)
SSAGA_Alc_D4_Dp_Sx	0.1065 (0.024)	0.1375 (0.01)	0.1487 (p < 0.00017)
SSAGA_BMICatHeaviest	0.1759 (p < 0.00017)	0.3399 (p < 0.00017)	0.3346 (p < 0.00017)
SSAGA_BMICat	0.1994 (p < 0.00017)	0.352 (p < 0.00017)	0.3523 (p < 0.00017)
SSAGA_ChildhoodConduct	0.06983 (0.1)	0.1939 (p < 0.00017)	0.2097 (p < 0.00017)
SSAGA_Depressive_Sx	0.05235 (0.492)	0.1739 (0.004)	0.1613 (0.01)
SSAGA_Educ	0.01716 (0.9)	0.1413 (0.202)	0.1509 (0.158)
SSAGA_Income	0.0464 (0.018)	0.03856 (0.642)	0.03464 (0.702)
SSAGA_Mj_Times_Used	0.1296 (p < 0.00017)	0.1018 (0.492)	0.08593 (0.548)
SSAGA_TB_Smoking_History	0.07028 (0.448)	0.07556 (p < 0.00017)	0.0779 (p < 0.00017)
SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0 (1)
SSAGA_Times_Used_Illicits	0.02894 (0.028)	0.1824 (p < 0.00017)	0.1954 (p < 0.00017)
Strength_AgeAdj	0.3624 (p < 0.00017)	0.5744 (p < 0.00017)	0.575 (p < 0.00017)
Strength_Unadj	0.3583 (p < 0.00017)	0.5896 (p < 0.00017)	0.5925 (p < 0.00017)
Taste_AgeAdj	0.08786 (0.552)	0.1217 (0.082)	0.134 (0.006)
Taste_Unadj	0.1026 (0.412)	0.1357 (0.034)	0.1341 (0.006)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)

Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.1546 (p < 0.00017)	0.2204 (p < 0.00017)	0.1978 (p < 0.00017)
VSPLOT_CRTE	0.04412 (0.052)	0.1162 (p < 0.00017)	0.08168 (0.03)
VSPLOT_OFF	0.2612 (p < 0.00017)	0.3213 (p < 0.00017)	0.3365 (p < 0.00017)
VSPLOT_TC	0.165 (p < 0.00017)	0.2131 (p < 0.00017)	0.2259 (p < 0.00017)
Weight	0.3135 (p < 0.00017)	0.5973 (p < 0.00017)	0.5734 (p < 0.00017)
WM_Task_Obk_Acc	0.05459 (0.15)	0.1218 (0.036)	0.1024 (0.16)
WM_Task_Obk_Body_Acc	0.04255 (0.564)	0.05284 (0.768)	0.05703 (0.668)
WM_Task_Obk_Body_Acc_Nontarget	0.06364 (0.466)	0.114 (0.278)	0.1015 (0.408)
WM_Task_Obk_Body_Acc_Target	0.04003 (0.836)	0.007654 (0.976)	0.006647 (0.944)
WM_Task_Obk_Body_Median_RT	0.05159 (0.16)	0.1341 (0.756)	0.1363 (0.822)
WM_Task_Obk_Body_Median_RT_Nontarget	0.03323 (0.336)	0.125 (0.834)	0.1381 (0.848)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.16 (0.062)	0.1047 (0.112)	0.09309 (0.296)
WM_Task_Obk_Face_ACC_Nontarget	0.1641 (0.052)	0.09501 (0.616)	0.08692 (0.772)
WM_Task_Obk_Face_Acc_Target	0.0223 (0.516)	0.1078 (0.182)	0.08812 (0.278)
WM_Task_Obk_Face_Median_RT	0.09335 (p < 0.00017)	0.0668 (0.082)	0.05202 (0.202)
WM_Task_Obk_Face_Median_RT_Nontarget	0.06445 (0.014)	0.04185 (0.222)	0.039 (0.286)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.05915 (0.154)	0.13 (0.468)	0.1285 (0.522)
WM_Task_Obk_Place_Acc	0.02939 (0.682)	0.09953 (0.078)	0.115 (0.036)
WM_Task_Obk_Place_Acc_Nontarget	0.03369 (0.402)	0.07634 (0.21)	0.08616 (0.046)
WM_Task_Obk_Place_Acc_Target	0.02549 (0.742)	0.04993 (0.708)	0.05661 (0.596)
WM_Task_Obk_Place_Median_RT	0.03608 (0.706)	0.04361 (0.95)	0.06689 (0.866)

WM_Task_Obk_Place_Median_RT_Nontarget	0.02424 (0.756)	0.05662 (0.742)	0.07406 (0.704)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.09518 (0.16)	0.1345 (0.12)	0.1112 (0.33)
WM_Task_Obk_Tool_Acc_Nontarget	0.0106 (0.252)	0.1686 (0.228)	0.1123 (0.64)
WM_Task_Obk_Tool_Acc_Target	0.1043 (0.006)	0.1208 (0.078)	0.1094 (0.31)
WM_Task_Obk_Tool_Median_RT	0.01888 (0.244)	0.1354 (0.004)	0.1215 (0.036)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.0163 (0.386)	0.1314 (0.03)	0.1301 (0.032)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.1071 (0.032)	0.3615 (p < 0.00017)	0.3766 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.1145 (0.082)	0.2788 (p < 0.00017)	0.3003 (p < 0.00017)
WM_Task_2bk_Body_Acc_Nontarget	0.1054 (0.038)	0.2124 (p < 0.00017)	0.2438 (p < 0.00017)
WM_Task_2bk_Body_Acc_Target	0.09928 (p < 0.00017)	0.2239 (0.004)	0.2273 (0.006)
WM_Task_2bk_Body_Median_RT	0.03746 (0.402)	0.1611 (p < 0.00017)	0.163 (p < 0.00017)
WM_Task_2bk_Body_Median_RT_Nontarget	0.04594 (0.376)	0.1258 (0.004)	0.1329 (0.006)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1357 (0.722)	0.2693 (p < 0.00017)	0.2791 (p < 0.00017)
WM_Task_2bk_Face_Acc_Nontarget	0.1094 (0.926)	0.1474 (p < 0.00017)	0.1515 (p < 0.00017)
WM_Task_2bk_Face_Acc_Target	0.1276 (0.038)	0.2873 (p < 0.00017)	0.2906 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.1277 (0.014)	0.1347 (0.21)	0.1442 (0.306)
WM_Task_2bk_Face_Median_RT_Nontarget	0.05784 (0.326)	0.1137 (0.474)	0.107 (0.686)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1157 (0.552)	0.2126 (0.002)	0.2076 (p < 0.00017)
WM_Task_2bk_Place_Acc	0.02427 (0.828)	0.2356 (p < 0.00017)	0.2409 (p < 0.00017)
WM_Task_2bk_Place_Acc_Nontarget	0.03 (0.412)	0.2407 (0.002)	0.2301 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.06172 (0.476)	0.07189 (0.056)	0.0881 (0.008)
WM_Task_2bk_Place_Median_RT	0.06305 (0.77)	0.106 (0.736)	0.105 (0.536)

WM_Task_2bk_Place_Median_RT_Nontarget	0.06428 (0.68)	0.08804 (0.96)	0.09897 (0.848)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.107 (0.15)	0.2348 (p < 0.00017)	0.2417 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.08663 (0.178)	0.2267 (0.004)	0.2384 (0.004)
WM_Task_2bk_Tool_Acc_Target	0.08223 (0.19)	0.153 (0.018)	0.1661 (p < 0.00017)
WM_Task_2bk_Tool_Median_RT	0.09854 (0.206)	0.09227 (0.096)	0.08315 (0.174)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.07813 (0.412)	0.1027 (0.166)	0.0823 (0.256)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1218 (0.012)	0.3439 (p < 0.00017)	0.3495 (p < 0.00017)
WM_Task_Median_RT	0.05782 (0.338)	0.1557 (0.182)	0.1637 (0.068)
ZygotySR	0 (1)	0 (1)	0 (1)
176 volumes   All subjects			
	rfMRI_REST1	rfMRI_REST2	tfMRI_EMOTION
Age_in_Yrs	0.1862 (p < 0.00017)	0.1743 (0.06)	0.1827 (p < 0.00017)
AngAffect_Unadj	0.04546 (0.81)	0.08063 (0.276)	0.08412 (0.926)
AngAggr_Unadj	0.08612 (0.002)	0.1264 (0.028)	0.1334 (0.01)
AngHostil_Unadj	0.01716 (0.754)	0.08833 (1)	0.02451 (0.262)
ASR_Aggr_Raw	0.05547 (0.432)	0.08513 (0.624)	0.08092 (0.35)
ASR_Aggr_T	0.06901 (0.254)	0.07704 (0.774)	0.08515 (0.172)
ASR_Anxd_Pct	0.0342 (0.632)	0.06946 (0.906)	0.08779 (0.082)
ASR_Anxd_Raw	0.05946 (0.184)	0.03575 (1)	0.07983 (0.682)
ASR_Attn_Raw	0.05343 (0.238)	0.1389 (0.778)	0.05404 (0.938)
ASR_Attn_T	0.08949 (0.032)	0.1708 (0.024)	0.04348 (0.878)
ASR_Crit_Raw	0.06478 (0.122)	0.04424 (0.982)	0.1072 (0.854)
ASR_Extn_Raw	0.0956 (0.182)	0.07396 (0.994)	0.09318 (0.048)
ASR_Extn_T	0.05477 (0.672)	0.1048 (0.984)	0.06136 (0.372)

ASR_Intn_Raw	0.05405 (0.172)	0.04723 (0.998)	0.09755 (0.292)
ASR_Intn_T	0.06182 (0.07)	0.03359 (1)	0.05634 (0.77)
ASR_Intr_Raw	0.02527 (0.998)	0.01885 (1)	0.1103 (0.042)
ASR_Intr_T	0.03852 (0.994)	0.01432 (1)	0.093 (0.19)
ASR_Oth_Raw	0.02637 (0.496)	0.06105 (0.978)	0.05418 (0.704)
ASR_Rule_Raw	0.1237 (0.002)	0.04338 (0.95)	0.209 (p < 0.00017)
ASR_Rule_T	0.03855 (0.282)	0.03404 (0.972)	0.06948 (0.142)
ASR_Soma_Raw	0.02601 (0.918)	0.03852 (0.756)	0.2029 (p < 0.00017)
ASR_Soma_T	0.05364 (0.51)	0.02889 (0.828)	0.2104 (p < 0.00017)
ASR_TAO_Sum	0.02507 (0.44)	0.0935 (0.998)	0.0441 (0.992)
ASR_Thot_Raw	0.01543 (0.954)	0.02213 (0.996)	0.03354 (1)
ASR_Thot_T	0.0402 (0.824)	0.02639 (0.874)	0.0493 (0.946)
ASR_Totp_Raw	0.01196 (0.614)	0.06941 (1)	0.08316 (0.752)
ASR_Totp_T	0.009011 (0.56)	0.06667 (1)	0.06862 (0.848)
ASR_Witd_Raw	0.06603 (0.112)	0.08488 (0.036)	0.06726 (0.642)
ASR_Witd_T	0.04764 (0.23)	0.05625 (0.044)	0.05056 (0.738)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1256 (0.002)	0.08379 (0.004)	0.1696 (0.02)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0.004536 (p < 0.00017)
Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.05554 (0.024)	0.08868 (0.164)	0.1403 (p < 0.00017)
BMI	0.1896 (p < 0.00017)	0.2026 (p < 0.00017)	0.2766 (p < 0.00017)
BPDiastolic	0.09706 (0.042)	0.1166 (0.102)	0.01489 (0.96)
BPSystolic	0.09259 (0.252)	0.09836 (0.062)	0.1506 (p < 0.00017)

CardSort_AgeAdj	0.1579 (p < 0.00017)	0.1522 (p < 0.00017)	0.05269 (0.996)
CardSort_Unadj	0.2112 (p < 0.00017)	0.1802 (p < 0.00017)	0.09888 (0.764)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.05844 (0.048)	0.1173 (p < 0.00017)	0.1906 (0.002)
DDisc_AUC_40K	0.04995 (0.274)	0.0593 (0.236)	0.08612 (0.054)
DDisc_SV_10yr_200	0.08072 (0.082)	0.1003 (0.754)	0.1197 (0.014)
DDisc_SV_10yr_40K	0.0936 (p < 0.00017)	0.1326 (p < 0.00017)	0.04108 (0.976)
DDisc_SV_1mo_200	0.0406 (0.998)	0.03116 (0.916)	0.03673 (0.47)
DDisc_SV_1mo_40K	0.04825 (0.334)	0.006782 (0.486)	0.06926 (0.732)
DDisc_SV_1yr_200	0.0857 (0.012)	0.0724 (0.036)	0.1573 (0.002)
DDisc_SV_1yr_40K	0.04338 (0.364)	0.1005 (0.102)	0.04756 (0.686)
DDisc_SV_3yr_200	0.03594 (0.238)	0.07895 (0.008)	0.1384 (0.004)
DDisc_SV_3yr_40K	0.06884 (0.968)	0.1085 (0.25)	0.1087 (0.032)
DDisc_SV_5yr_200	0.0823 (0.012)	0.1537 (p < 0.00017)	0.1587 (0.048)
DDisc_SV_5yr_40K	0.04325 (0.468)	0.03341 (0.174)	0.1323 (p < 0.00017)
DDisc_SV_6mo_200	0.0472 (0.998)	0.08348 (0.01)	0.08801 (0.266)
DDisc_SV_6mo_40K	0.1072 (0.148)	0.07971 (0.02)	0.09463 (0.03)
Dexterity_AgeAdj	0.09665 (0.456)	0.1032 (0.084)	0.02713 (0.214)
Dexterity_Unadj	0.1053 (0.38)	0.1201 (0.042)	0.02464 (0.258)
DSM_Adh_Raw	0.08965 (0.02)	0.1075 (0.918)	0.0314 (0.888)
DSM_Adh_T	0.09616 (0.034)	0.1341 (0.28)	0.04178 (0.888)



DSM_Antis_Raw	0.1146 (0.008)	0.09643 (0.006)	0.1973 (p < 0.00017)
DSM_Antis_T	0.07597 (0.068)	0.04027 (0.384)	0.1296 (0.016)
DSM_Anxi_Raw	0.03748 (0.118)	0.08657 (0.804)	0.06839 (0.958)
DSM_Anxi_T	0.03013 (0.368)	0.05832 (0.942)	0.09443 (0.338)
DSM_Avoid_Raw	0.08534 (0.006)	0.03277 (0.986)	0.02981 (0.908)
DSM_Avoid_T	0.06687 (0.048)	0.04807 (0.956)	0.04096 (0.588)
DSM_Depr_Raw	0.05238 (0.182)	0.04905 (1)	0.07272 (0.476)
DSM_Depr_T	0.06943 (0.022)	0.05897 (0.998)	0.08671 (0.028)
DSM_Hype_Raw	0.07945 (0.066)	0.1425 (0.356)	0.04736 (0.122)
DSM_Inat_Raw	0.0865 (0.03)	0.0799 (0.998)	0.03047 (0.996)
DSM_Somp_Raw	0.07056 (0.784)	0.05569 (0.21)	0.1208 (0.014)
DSM_Somp_T	0.07122 (0.736)	0.05626 (0.238)	0.1083 (0.012)
Emotion_Task_Acc	0.07862 (0.388)	0.1425 (0.088)	0.1511 (p < 0.00017)
Emotion_Task_Face_Acc	0.06975 (0.866)	0.1136 (0.016)	0.05451 (0.254)
Emotion_Task_Face_Median_RT	0.02681 (0.998)	0.04787 (0.156)	0.07087 (0.356)
Emotion_Task_Median_RT	0.03046 (1)	0.06536 (0.058)	0.1317 (0.206)
Emotion_Task_Shape_Acc	0.05134 (0.37)	0.1377 (0.018)	0.1655 (0.004)
Emotion_Task_Shape_Median_RT	0.04197 (0.998)	0.07849 (0.072)	0.2157 (p < 0.00017)
EmotSupp_Unadj	0.04298 (0.048)	0.0646 (0.07)	0.04918 (0.308)
Endurance_AgeAdj	0.1093 (0.032)	0.1519 (0.04)	0.09167 (0.036)
Endurance_Unadj	0.1307 (0.02)	0.1482 (0.038)	0.1062 (0.004)
ER40ANG	0.04615 (0.656)	0.035 (0.754)	0.05177 (0.858)
ER40FEAR	0.06912 (p < 0.00017)	0.1183 (0.106)	0.01744 (0.968)
ER40NOE	0.07721 (0.524)	0.05514 (1)	0.08355 (0.612)
ER40SAD	0.02249 (1)	0.04071 (0.964)	0.007189 (0.978)

ER40_CRT	0.04392 (0.11)	0.02573 (0.854)	0.02705 (0.984)
ER40_CR	0.06333 (0.73)	0.0287 (0.898)	0.03398 (0.904)
EVA_Denom	0.02936 (0.678)	0.04572 (0.532)	0.09064 (0.856)
FearAffect_Unadj	0.07161 (0.044)	0.0358 (0.688)	0.1168 (0.072)
FearSomat_Unadj	0.1024 (p < 0.00017)	0.1227 (0.004)	0.03839 (0.172)
Flanker_AgeAdj	0.1494 (0.188)	0.1887 (p < 0.00017)	0.02263 (0.68)
Flanker_Unadj	0.1856 (0.02)	0.2169 (p < 0.00017)	0.02967 (0.408)
Friendship_Unadj	0.01084 (0.128)	0.06237 (0.278)	0.1067 (0.286)
GaitSpeed_Comp	0.08533 (0.058)	0.03679 (0.388)	0.07942 (0.992)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.09035 (0.064)	0.02795 (0.022)	0.0476 (0.078)
Gambling_Task_Perc_Larger	0.1568 (p < 0.00017)	0.08108 (0.404)	0.05117 (0.522)
Gambling_Task_Perc_Smaller	0.1591 (p < 0.00017)	0.0834 (0.384)	0.04691 (0.554)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.118 (p < 0.00017)	0.0465 (0.042)	0.07064 (0.018)
Gambling_Task_Punish_Perc_Larger	0.15 (0.128)	0.1013 (p < 0.00017)	0.02517 (0.826)
Gambling_Task_Punish_Perc_Smaller	0.1493 (0.136)	0.09914 (0.002)	0.02157 (0.844)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.02204 (0.664)	0.08335 (0.304)	0.0322 (0.22)
Gambling_Task_Reward_Perc_Smaller	0.01428 (0.79)	0.08239 (0.3)	0.03768 (0.204)
Handedness	0.03022 (0.312)	0.1086 (p < 0.00017)	0.06152 (0.41)
Height	0.2943 (p < 0.00017)	0.1979 (p < 0.00017)	0.4209 (p < 0.00017)
InstruSupp_Unadj	0.02218 (0.462)	0.03717 (0.962)	0.07282 (0.29)
IWRD_RTC	0.08221 (0.156)	0.06524 (0.12)	0.01244 (0.966)

IWRD_TOT	0.04053 (0.338)	0.09158 (0.02)	0.09672 (p < 0.00017)
Language_Task_Acc	0.1154 (0.008)	0.1874 (p < 0.00017)	0.1963 (p < 0.00017)
Language_Task_Math_Acc	0.08392 (0.074)	0.09818 (0.034)	0.1803 (0.012)
Language_Task_Math_Avg_Difficulty_Level	0.1742 (p < 0.00017)	0.1874 (0.002)	0.08625 (0.05)
Language_Task_Math_Median_RT	0.03105 (0.39)	0.07948 (0.168)	0.02348 (0.98)
Language_Task_Median_RT	0.04993 (0.13)	0.1134 (0.002)	0.003022 (0.988)
Language_Task_Story_Acc	0.1571 (0.032)	0.1049 (0.598)	0.1137 (0.136)
Language_Task_Story_Avg_Difficulty_Level	0.1117 (0.034)	0.1562 (p < 0.00017)	0.3519 (p < 0.00017)
Language_Task_Story_Median_RT	0.05178 (0.202)	0.1258 (0.004)	0.008785 (0.994)
LifeSatisf_Unadj	0.0412 (0.664)	0.09163 (0.106)	0.1584 (p < 0.00017)
ListSort_AgeAdj	0.1934 (p < 0.00017)	0.1521 (p < 0.00017)	0.0568 (0.232)
ListSort_Unadj	0.1929 (p < 0.00017)	0.1681 (p < 0.00017)	0.06987 (0.194)
Loneliness_Unadj	0.04251 (0.132)	0.05265 (0.952)	0.1406 (0.008)
Mars_Errs	0.1113 (p < 0.00017)	0.1007 (0.004)	0.02514 (0.784)
Mars_Final	0.0836 (0.144)	0.04909 (0.944)	0.1049 (0.01)
Mars_Log_Score	0.1096 (0.05)	0.09617 (0.998)	0.1241 (0.004)
MeanPurp_Unadj	0.1224 (p < 0.00017)	0.135 (p < 0.00017)	0.02763 (0.764)
MMSE_Score	0.1112 (0.452)	0.1852 (0.646)	0.1038 (0.052)
Noise_Comp	0.04279 (0.886)	0.0553 (0.01)	0.01602 (0.986)
Num_Days_Drank_7days	0.1158 (0.004)	0.09529 (0.006)	0.1616 (0.008)
Num_Days_Used_Any_Tobacco_7days	0.007029 (p < 0.00017)	0 (1)	0.05357 (0.132)
Odor_AgeAdj	0.02952 (0.726)	0.02588 (0.694)	0.1301 (0.006)
Odor_Unadj	0.04349 (0.854)	0.04329 (0.778)	0.1357 (p < 0.00017)
PainIntens_RawScore	0.009184 (0.782)	0.0565 (0.044)	0.02315 (0.124)
PainInterf_Tscore	0.0252 (0.762)	0.05521 (0.118)	0.1063 (0.01)

PercHostil_Unadj	0.09436 (p < 0.00017)	0.01244 (0.998)	0.0184 (0.994)
PercReject_Unadj	0.08444 (0.032)	0.05379 (0.534)	0.03268 (0.084)
PercStress_Unadj	0.01492 (0.944)	0.07441 (1)	0.1105 (0.398)
PicSeq_AgeAdj	0.06513 (0.012)	0.1081 (0.022)	0.03727 (0.534)
PicSeq_Unadj	0.06057 (0.01)	0.09862 (0.006)	0.02406 (0.836)
PicVocab_AgeAdj	0.08039 (0.016)	0.05184 (0.066)	0.2219 (p < 0.00017)
PicVocab_Unadj	0.05065 (0.382)	0.01554 (0.442)	0.1998 (p < 0.00017)
PMAT24_A_CR	0.1402 (p < 0.00017)	0.1523 (p < 0.00017)	0.1572 (0.016)
PMAT24_A_RTcr	0.01611 (0.456)	0.143 (0.028)	0.1247 (0.312)
PMAT24_A_Sl	0.09995 (0.008)	0.154 (0.002)	0.1067 (0.622)
PosAffect_Unadj	0.03295 (0.208)	0.1543 (p < 0.00017)	0.05398 (0.5)
ProcSpeed_AgeAdj	0.01839 (1)	0.09237 (0.042)	0.05908 (0.168)
ProcSpeed_Unadj	0.00734 (1)	0.09718 (0.094)	0.07618 (0.034)
PSQI_AmtSleep	0.02962 (0.78)	0.09327 (0.638)	0.02623 (0.992)
PSQI_BadDream	0.00757 (0.542)	0.08052 (0.066)	0.01317 (0.724)
PSQI_Bathroom	0.1209 (p < 0.00017)	0.1213 (0.134)	0.02539 (0.954)
PSQI_BedPtnrRmate	0.03146 (0.898)	0.02879 (0.556)	0.08427 (0.194)
PSQI_BedTime	0.1881 (p < 0.00017)	0.05175 (0.766)	0.1449 (0.002)
PSQI_Breathe	0 (1)	0 (1)	0 (1)
PSQI_Comp1	0.05284 (0.018)	0.08681 (0.48)	0.07747 (0.24)
PSQI_Comp2	0.09078 (0.014)	0.01988 (0.384)	0.03678 (0.428)
PSQI_Comp3	0.05803 (0.188)	0.1699 (0.578)	0.03635 (0.982)
PSQI_Comp4	0.07225 (0.708)	0.02086 (0.244)	0.09551 (0.574)
PSQI_Comp5	0.03135 (0.306)	0.058 (0.316)	0.07684 (0.302)
PSQI_Comp6	0 (1)	0 (1)	0.005648 (0.4)
PSQI_Comp7	0.06279 (0.034)	0.04349 (0.898)	0.04431 (1)

PSQI_DayEnthusiasm	0.03322 (0.988)	0.0492 (0.968)	0.01837 (1)
PSQI_DayStayAwake	0 (1)	0 (1)	0.06504 (0.55)
PSQI_GetUpTime	0.06468 (0.72)	0.05317 (0.994)	0.1196 (0.002)
PSQI_Latency30Min	0.06895 (0.082)	0.006342 (0.336)	0.002768 (0.986)
PSQI_Min2Asleep	0.01946 (0.816)	0.04203 (0.264)	0.06271 (0.7)
PSQI_Other	0.1054 (0.424)	0.0773 (0.004)	0.03331 (0.946)
PSQI_Pain	0 (1)	0 (1)	0.03738 (0.442)
PSQI_Quality	0.04998 (0.016)	0.04158 (0.892)	0.07537 (0.288)
PSQI_Score	0.03219 (0.29)	0.02509 (0.4)	0.0856 (0.504)
PSQI_SleepMeds	0 (1)	0 (1)	0.007941 (0.382)
PSQI_Snore	0 (1)	0 (1)	0.004398 (0.02)
PSQI_TooCold	0.07763 (0.072)	0.1225 (0.338)	0.09359 (0.21)
PSQI_TooHot	0.04753 (0.012)	0.1254 (0.31)	0.06044 (0.024)
PSQI_WakeUp	0.0164 (0.99)	0.04424 (0.848)	0.0786 (0.022)
Race	0 (1)	0 (1)	0.1519 (0.004)
ReadEng_AgeAdj	0.1285 (0.002)	0.1358 (p < 0.00017)	0.1879 (p < 0.00017)
ReadEng_Unadj	0.147 (p < 0.00017)	0.1064 (p < 0.00017)	0.1788 (p < 0.00017)
Relational_Task_Acc	0.09022 (0.242)	0.1552 (0.002)	0.1377 (0.21)
Relational_Task_Match_Acc	0.1055 (0.002)	0.07152 (0.906)	0.2211 (p < 0.00017)
Relational_Task_Match_Median_RT	0.07767 (p < 0.00017)	0.03379 (0.998)	0.1592 (p < 0.00017)
Relational_Task_Median_RT	0.05558 (0.002)	0.1025 (0.364)	0.08397 (0.002)
Relational_Task_Rel_Acc	0.04907 (0.948)	0.1421 (0.014)	0.06605 (0.912)
Relational_Task_Rel_Median_RT	0.05467 (0.04)	0.1352 (0.05)	0.05067 (0.132)
Sadness_Unadj	0.07007 (0.384)	0.0543 (1)	0.08565 (0.02)
SCPT_FN	0.06273 (0.044)	0.01431 (0.932)	0.01194 (0.73)
SCPT_FP	0.08734 (0.176)	0.04363 (0.296)	0.118 (0.026)

SCPT_LRNR	0.02705 (0.996)	0.05257 (0.26)	0.05186 (0.628)
SCPT_SEN	0.0628 (0.062)	0.02314 (0.852)	0.01518 (0.74)
SCPT_SPEC	0.0953 (0.162)	0.04237 (0.34)	0.1168 (0.048)
SCPT_TN	0.09389 (0.132)	0.03538 (0.402)	0.1098 (0.076)
SCPT_TPRT	0.04526 (0.21)	0.02489 (0.72)	0.01362 (0.992)
SCPT_TP	0.06597 (0.036)	0.01251 (0.93)	0.01497 (0.732)
SelfEff_Unadj	0.1328 (0.01)	0.1668 (0.95)	0.1216 (0.07)
Social_Task_Perc_Random	0.08552 (0.026)	0.0133 (0.868)	0.057 (0.512)
Social_Task_Perc_TOM	0.03479 (0.256)	0.03362 (0.322)	0.06798 (0.446)
Social_Task_Perc_Unsure	0.06709 (0.736)	0.07473 (0.01)	0.1311 (0.054)
Social_Task_Random_Perc_Random	0.1105 (0.002)	0.03962 (0.936)	0.06 (0.372)
Social_Task_Random_Perc_TOM	0 (1)	0.005605 (p < 0.00017)	0.04375 (0.074)
Social_Task_Random_Perc_Unsure	0.0929 (0.004)	0.07627 (p < 0.00017)	0.02385 (0.96)
Social_Task_TOM_Median_RT_TOM	0.1207 (0.026)	0.03674 (0.292)	0.06215 (0.14)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.03979 (0.378)	0.02282 (0.68)	0.07178 (0.028)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.06224 (0.01)
SSAGA_Alc_D4_Dp_Sx	0.02969 (0.51)	0.0619 (0.198)	0.1528 (p < 0.00017)
SSAGA_BMICatHeaviest	0.1677 (p < 0.00017)	0.177 (p < 0.00017)	0.1879 (0.004)
SSAGA_BMICat	0.1608 (0.006)	0.1561 (p < 0.00017)	0.2623 (p < 0.00017)
SSAGA_ChildhoodConduct	0.02656 (0.964)	0.1154 (0.002)	0.1285 (p < 0.00017)
SSAGA_Depressive_Sx	0.1417 (0.216)	0.02393 (0.52)	0.11 (0.106)
SSAGA_Educ	0.02571 (0.99)	0.03602 (0.228)	0.216 (p < 0.00017)
SSAGA_Income	0.07618 (0.018)	0.03604 (0.25)	0.0771 (0.116)
SSAGA_Mj_Times_Used	0.05125 (0.988)	0.07649 (0.002)	0.09778 (0.094)
SSAGA_TB_Smoking_History	0.1052 (p < 0.00017)	0.02577 (0.988)	0.06885 (0.004)

SSAGA_Times_Used_Hallucinogens	0 (1)	0 (1)	0.05708 (0.008)
	0.03944 (0.016)	0.04484 (0.314)	0.1563 (p < 0.00017)
SSAGA_Times_Used_Illicits			
Strength_AgeAdj	0.3377 (p < 0.00017)	0.296 (p < 0.00017)	0.4368 (p < 0.00017)
Strength_Unadj	0.3387 (p < 0.00017)	0.3014 (p < 0.00017)	0.4347 (p < 0.00017)
Taste_AgeAdj	0.07832 (0.364)	0.06516 (0.29)	0.008455 (0.88)
Taste_Unadj	0.0971 (0.196)	0.08483 (0.156)	0.0196 (0.744)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Cheew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.1345 (p < 0.00017)	0.09779 (0.012)	0.1997 (0.002)
VSPLOT_CRTE	0.0248 (0.08)	0.1057 (0.018)	0.02083 (0.68)
VSPLOT_OFF	0.2536 (p < 0.00017)	0.1913 (p < 0.00017)	0.1726 (p < 0.00017)
VSPLOT_TC	0.1864 (p < 0.00017)	0.1003 (0.006)	0.1608 (p < 0.00017)
Weight	0.2566 (p < 0.00017)	0.2787 (p < 0.00017)	0.3737 (p < 0.00017)
WM_Task_Obk_Acc	0.07624 (0.092)	0.03772 (0.116)	0.04846 (0.586)
WM_Task_Obk_Body_Acc	0.0618 (0.272)	0.04418 (0.378)	0.05106 (0.282)
WM_Task_Obk_Body_Acc_Nontarget	0.04023 (0.644)	0.09339 (0.064)	0.06376 (0.08)
WM_Task_Obk_Body_Acc_Target	0.03192 (0.738)	0.0706 (0.668)	0.02824 (0.426)
WM_Task_Obk_Body_Median_RT	0.01321 (0.4)	0.06187 (0.116)	0.06412 (0.988)
WM_Task_Obk_Body_Median_RT_Nontarget	0.01295 (0.412)	0.04192 (0.162)	0.06187 (0.99)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.1446 (0.058)	0.1458 (0.05)	0.03579 (0.81)
WM_Task_Obk_Face_ACC_Nontarget	0.1247 (0.066)	0.1773 (0.004)	0.03469 (0.892)
WM_Task_Obk_Face_Acc_Target	0.03311 (0.566)	0.04997 (0.428)	0.0464 (0.392)
WM_Task_Obk_Face_Median_RT	0.05747 (0.014)	0.03381 (0.514)	0.03302 (0.982)
WM_Task_Obk_Face_Median_RT_Nontarget	0.0616 (0.036)	0.02487 (0.532)	0.01608 (0.996)

WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
		0.04751	
WM_Task_Obk_Median_RT	0.0119 (0.23)	(0.664)	0.04832 (0.958)
	0.02995	0.02096	
WM_Task_Obk_Place_Acc	(0.998)	(0.37)	0.06139 (0.686)
	0.0727	0.01631	
WM_Task_Obk_Place_Acc_Nontarget	(0.914)	(0.544)	0.05174 (0.414)
	0.02378	0.03216	
WM_Task_Obk_Place_Acc_Target	(0.942)	(0.448)	0.03326 (0.974)
	0.005049	0.0308	
WM_Task_Obk_Place_Median_RT	(0.502)	(0.968)	0.01325 (1)
	0.01453	0.0249	
WM_Task_Obk_Place_Median_RT_Nontarget	(0.256)	(0.978)	0.005878 (1)
	0 (1)	0 (1)	0 (1)
	0.07192	0.06273	
WM_Task_Obk_Tool_Acc	(0.318)	(0.252)	0.09349 (0.082)
	0.009704	0.0256	
WM_Task_Obk_Tool_Acc_Nontarget	(0.386)	(0.204)	0.09443 (0.608)
	0.08691	0.04161	
WM_Task_Obk_Tool_Acc_Target	(0.046)	(0.244)	0.04528 (0.498)
	0.008452	0.02459	
WM_Task_Obk_Tool_Median_RT	(0.532)	(0.756)	0.04235 (0.336)
	0.006858	0.03499	
WM_Task_Obk_Tool_Median_RT_Nontarget	(0.38)	(0.75)	0.03757 (0.566)
	0 (1)	0 (1)	0 (1)
	0.09071 (p <	0.1116	0.2279 (p <
WM_Task_2bk_Acc	0.00017)	(0.048)	0.00017)
	0.2192 (p <	0.1109	0.2081 (p <
WM_Task_2bk_Body_Acc	0.00017)	(0.002)	0.00017)
	0.1669	0.1101 (p <	
WM_Task_2bk_Body_Acc_Nontarget	(0.008)	0.00017)	0.1658 (0.002)
	0.1085 (p <	0.06515	
WM_Task_2bk_Body_Acc_Target	0.00017)	(0.092)	0.09566 (0.45)
	0.06827		
WM_Task_2bk_Body_Median_RT	(0.044)	0.0227 (1)	0.03859 (0.886)
	0.08484		
WM_Task_2bk_Body_Median_RT_Nontarget	(0.016)	0.01711 (1)	0.1072 (0.57)
	0 (1)	0 (1)	0 (1)
	0.07468		0.1473 (p <
WM_Task_2bk_Face_Acc	(0.088)	0.116 (0.854)	0.00017)
	0.04229		
WM_Task_2bk_Face_Acc_Nontarget	(0.696)	0.05381 (1)	0.1016 (0.01)
	0.1842 (p <	0.1403	0.1253 (p <
WM_Task_2bk_Face_Acc_Target	0.00017)	(0.068)	0.00017)
	0.08902 (p <		
WM_Task_2bk_Face_Median_RT	0.00017)	0.103 (0.982)	0.07945 (0.942)
	0.04529	0.08172	
WM_Task_2bk_Face_Median_RT_Nontarget	(0.04)	(0.98)	0.03755 (1)



WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.1484 (p < 0.00017)	0.06999 (1)	0.06149 (0.978)
WM_Task_2bk_Place_Acc	0.008729 (0.86)	0.09877 (0.04)	0.09389 (p < 0.00017)
WM_Task_2bk_Place_Acc_Nontarget	0.04961 (0.394)	0.04597 (0.344)	0.203 (p < 0.00017)
WM_Task_2bk_Place_Acc_Target	0.05442 (0.188)	0.08416 (0.026)	0.07081 (0.01)
WM_Task_2bk_Place_Median_RT	0.1217 (p < 0.00017)	0.01442 (1)	0.06116 (0.552)
WM_Task_2bk_Place_Median_RT_Nontarget	0.1075 (p < 0.00017)	0.01363 (1)	0.03937 (0.96)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.09197 (0.158)	0.1007 (0.558)	0.1239 (0.002)
WM_Task_2bk_Tool_Acc_Nontarget	0.07208 (0.03)	0.1181 (0.24)	0.04721 (0.752)
WM_Task_2bk_Tool_Acc_Target	0.07858 (0.754)	0.04829 (0.272)	0.08513 (0.076)
WM_Task_2bk_Tool_Median_RT	0.1074 (p < 0.00017)	0.1123 (0.988)	0.0808 (1)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.07478 (0.324)	0.08093 (1)	0.05618 (1)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.09865 (p < 0.00017)	0.1073 (0.316)	0.1873 (p < 0.00017)
WM_Task_Median_RT	0.06992 (p < 0.00017)	0.05353 (0.998)	0.05551 (0.998)
ZygotySR	0 (1)	0 (1)	0 (1)

176 volumes   All subjects			
	tfMRI_GAMBLI NG	tfMRI_LANGUA GE	tfMRI_MOTOR
Age_in_Yrs	0.1679 (p < 0.00017)	0.3145 (p < 0.00017)	0.2152 (p < 0.00017)
AngAffect_Unadj	0.02682 (0.878)	0.1581 (p < 0.00017)	0.04558 (0.13)
AngAggr_Unadj	0.1115 (0.002)	0.2545 (p < 0.00017)	0.0776 (0.224)
AngHostil_Unadj	0.03152 (0.998)	0.02981 (0.096)	0.02172 (0.88)
ASR_Aggr_Raw	0.06841 (0.542)	0.121 (0.002)	0.1211 (0.078)
ASR_Aggr_T	0.05565 (0.902)	0.0933 (0.03)	0.1065 (0.164)
ASR_Anxd_Pct	0.02722 (0.998)	0.1591 (p < 0.00017)	0.1065 (p < 0.00017)
ASR_Anxd_Raw	0.04211 (0.936)	0.1689 (p < 0.00017)	0.112 (0.002)
ASR_Attn_Raw	0.01909 (0.852)	0.09064 (0.856)	0.007231 (0.614)
ASR_Attn_T	0.05172 (0.042)	0.0823 (0.834)	0.003104 (0.842)
ASR_Crit_Raw	0.05012 (0.004)	0.05197 (0.014)	0.05012 (0.658)
ASR_Extn_Raw	0.09744 (0.012)	0.07705 (0.01)	0.2107 (p < 0.00017)
ASR_Extn_T	0.08521 (0.004)	0.04079 (0.204)	0.2043 (p < 0.00017)
ASR_Intn_Raw	0.05646 (0.852)	0.1474 (p < 0.00017)	0.07082 (0.302)
ASR_Intn_T	0.03155 (0.948)	0.136 (0.004)	0.07894 (0.236)
ASR_Intr_Raw	0.1026 (0.002)	0.02743 (0.752)	0.1713 (p < 0.00017)
ASR_Intr_T	0.1109 (p < 0.00017)	0.0196 (0.576)	0.1832 (p < 0.00017)
ASR_Oth_Raw	0.04809 (0.888)	0.08233 (0.776)	0.1039 (0.074)
ASR_Rule_Raw	0.136 (p < 0.00017)	0.09116 (0.002)	0.2464 (p < 0.00017)
ASR_Rule_T	0.07133 (0.042)	0.04485 (0.338)	0.1884 (p < 0.00017)
ASR_Soma_Raw	0.03641 (0.234)	0.06049 (0.014)	0.06236 (0.476)
ASR_Soma_T	0.03996 (0.284)	0.0782 (0.02)	0.07632 (0.116)
ASR_TAO_Sum	0.05431 (0.526)	0.08101 (0.818)	0.04501 (0.676)
ASR_Thot_Raw	0.04646 (0.494)	0.05405 (0.704)	0.03026 (0.998)
ASR_Thot_T	0.05948 (0.41)	0.08099 (0.704)	0.05151 (0.956)

ASR_Totp_Raw	0.05946 (0.554)	0.1167 (0.09)	0.07189 (0.506)
ASR_Totp_T	0.05882 (0.444)	0.1019 (0.172)	0.07982 (0.404)
ASR_Witd_Raw	0.06209 (0.06)	0.07222 (0.31)	0.09359 (0.084)
ASR_Witd_T	0.06677 (0.05)	0.09848 (0.098)	0.05744 (0.308)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_CheW_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1345 (p < 0.00017)	0.1266 (0.002)	0.143 (p < 0.00017)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_CheW_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.08881 (0.01)	0.08099 (0.588)	0.1171 (0.074)
BMI	0.2817 (p < 0.00017)	0.18 (p < 0.00017)	0.3291 (p < 0.00017)
BPDiastolic	0.1043 (0.002)	0.129 (p < 0.00017)	0.2494 (p < 0.00017)
BPSystolic	0.3046 (p < 0.00017)	0.3203 (p < 0.00017)	0.3291 (p < 0.00017)
CardSort_AgeAdj	0.01258 (0.97)	0.03319 (0.744)	0.1508 (p < 0.00017)
CardSort_Unadj	0.03325 (0.938)	0.03632 (0.962)	0.1983 (p < 0.00017)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.1526 (p < 0.00017)	0.08756 (0.008)	0.03078 (0.884)
DDisc_AUC_40K	0.1177 (p < 0.00017)	0.1764 (p < 0.00017)	0.09368 (0.014)
DDisc_SV_10yr_200	0.03787 (0.782)	0.07064 (0.19)	0.0358 (0.81)
DDisc_SV_10yr_40K	0.06472 (0.002)	0.1538 (p < 0.00017)	0.05061 (0.094)
DDisc_SV_1mo_200	0.05736 (0.276)	0.06943 (0.068)	0.03863 (0.902)
DDisc_SV_1mo_40K	0.04266 (0.012)	0.08724 (0.016)	0.06129 (0.998)

DDisc_SV_1yr_200	0.159 (p < 0.00017)	0.1102 (p < 0.00017)	0.0541 (0.072)
DDisc_SV_1yr_40K	0.1127 (p < 0.00017)	0.08324 (0.012)	0.08316 (0.052)
DDisc_SV_3yr_200	0.1135 (p < 0.00017)	0.1691 (p < 0.00017)	0.04373 (0.752)
DDisc_SV_3yr_40K	0.1332 (p < 0.00017)	0.06372 (0.044)	0.05751 (0.378)
DDisc_SV_5yr_200	0.1652 (p < 0.00017)	0.1046 (0.004)	0.01301 (0.996)
DDisc_SV_5yr_40K	0.1571 (p < 0.00017)	0.2008 (p < 0.00017)	0.105 (0.004)
DDisc_SV_6mo_200	0.07077 (p < 0.00017)	0.06691 (0.13)	0.0326 (0.992)
DDisc_SV_6mo_40K	0.0552 (0.026)	0.05748 (0.224)	0.0531 (0.806)
Dexterity_AgeAdj	0.1623 (0.018)	0.2016 (p < 0.00017)	0.1524 (p < 0.00017)
Dexterity_Unadj	0.1661 (0.022)	0.221 (p < 0.00017)	0.1675 (p < 0.00017)
DSM_Adh_Raw	0.01853 (0.942)	0.079 (0.118)	0.009333 (0.758)
DSM_Adh_T	0.0267 (0.676)	0.0857 (0.184)	0.01378 (0.796)
DSM_Antis_Raw	0.1403 (p < 0.00017)	0.2192 (p < 0.00017)	0.2117 (p < 0.00017)
DSM_Antis_T	0.1127 (0.012)	0.1113 (0.008)	0.1079 (0.014)
DSM_Anxi_Raw	0.04352 (0.694)	0.1445 (p < 0.00017)	0.111 (0.004)
DSM_Anxi_T	0.01062 (0.988)	0.1263 (0.034)	0.07251 (0.02)
DSM_Avoid_Raw	0.02538 (0.886)	0.1013 (0.082)	0.09809 (0.182)
DSM_Avoid_T	0.03181 (0.624)	0.1024 (0.048)	0.06523 (0.356)
DSM_Depr_Raw	0.06896 (0.62)	0.128 (0.004)	0.03715 (0.044)
DSM_Depr_T	0.0808 (0.218)	0.1386 (0.002)	0.03374 (0.092)
DSM_Hype_Raw	0.0519 (0.926)	0.05737 (0.058)	0.04086 (0.642)
DSM_Inat_Raw	0.006746 (0.966)	0.07227 (0.954)	0.002194 (0.896)
DSM_Somp_Raw	0.04611 (0.308)	0.07951 (0.024)	0.07321 (0.74)
DSM_Somp_T	0.04165 (0.45)	0.0741 (0.014)	0.07373 (0.62)
Emotion_Task_Acc	0.05815 (0.032)	0.1119 (0.026)	0.09739 (0.072)
Emotion_Task_Face_Acc	0.05182 (0.948)	0.03712 (0.958)	0.07025 (0.014)
Emotion_Task_Face_Median_RT	0.05019 (0.986)	0.1353 (0.21)	0.1002 (p < 0.00017)

Emotion_Task_Median_RT	0.09447 (0.698)	0.213 (0.01)	0.1196 (0.002)
Emotion_Task_Shape_Acc	0.07046 (0.226)	0.08159 (0.156)	0.06592 (0.518)
Emotion_Task_Shape_Median_RT	0.08062 (0.196)	0.2659 (0.01)	0.1165 (0.004)
EmotSupp_Unadj	0.02058 (0.86)	0.06011 (0.908)	0.0193 (0.472)
Endurance_AgeAdj	0.1802 (p < 0.00017)	0.07612 (0.28)	0.1316 (p < 0.00017)
Endurance_Unadj	0.1941 (p < 0.00017)	0.0977 (0.172)	0.1423 (p < 0.00017)
ER40ANG	0.01717 (1)	0.1558 (0.082)	0.05824 (0.176)
ER40FEAR	0.04038 (0.754)	0.04367 (0.458)	0.05465 (0.662)
ER40NOE	0.0221 (1)	0.02066 (0.512)	0.07065 (0.988)
ER40SAD	0.01885 (0.912)	0.03491 (0.22)	0.08895 (0.148)
ER40_CRT	0.01721 (0.936)	0.1089 (0.128)	0.027 (0.992)
ER40_CR	0.0124 (0.984)	0.08177 (0.02)	0.1159 (0.23)
EVA_Denom	0.08607 (0.084)	0.01035 (0.366)	0.02849 (0.66)
FearAffect_Unadj	0.06768 (0.052)	0.05235 (0.526)	0.1163 (0.01)
FearSomat_Unadj	0.1107 (0.212)	0.01888 (0.994)	0.1495 (p < 0.00017)
Flanker_AgeAdj	0.1504 (0.04)	0.06197 (0.968)	0.2077 (0.002)
Flanker_Unadj	0.1475 (0.096)	0.1354 (0.298)	0.2273 (p < 0.00017)
Friendship_Unadj	0.06348 (0.076)	0.04301 (0.888)	0.1736 (p < 0.00017)
GaitSpeed_Comp	0.2021 (p < 0.00017)	0.0738 (0.754)	0.08233 (0.16)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.0743 (0.13)	0.07047 (0.078)	0.2509 (p < 0.00017)
Gambling_Task_Perc_Larger	0.03781 (0.974)	0.02744 (0.998)	0.03401 (0.928)
Gambling_Task_Perc_Smaller	0.03971 (0.968)	0.02599 (0.998)	0.03632 (0.916)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.1027 (0.014)	0.08738 (0.09)	0.2619 (p < 0.00017)
Gambling_Task_Punish_Perc_Larger	0.04866 (0.922)	0.01091 (0.84)	0.01386 (0.86)
Gambling_Task_Punish_Perc_Smaller	0.04502 (0.92)	0.01199 (0.82)	0.01364 (0.902)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)

Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.07665 (0.354)	0.02067 (1)	0.03364 (0.642)
Gambling_Task_Reward_Perc_Smaller	0.076 (0.368)	0.02306 (1)	0.03518 (0.654)
Handedness	0.1624 (p < 0.00017)	0.08211 (0.508)	0.03429 (0.914)
Height	0.4411 (p < 0.00017)	0.384 (p < 0.00017)	0.4631 (p < 0.00017)
InstruSupp_Unadj	0.03534 (0.408)	0.04282 (0.4)	0.1033 (0.07)
IWRD_RTC	0.03021 (0.94)	0.1356 (0.004)	0.04142 (0.796)
IWRD_TOT	0.03915 (0.776)	0.0199 (0.606)	0.02595 (0.934)
Language_Task_Acc	0.1131 (p < 0.00017)	0.2526 (p < 0.00017)	0.1067 (0.862)
Language_Task_Math_Acc	0.1848 (p < 0.00017)	0.2238 (p < 0.00017)	0.0638 (0.954)
Language_Task_Math_Avg_Difficulty_Level	0.03251 (0.256)	0.2683 (p < 0.00017)	0.1057 (0.878)
Language_Task_Math_Median_RT	0.01402 (0.826)	0.02302 (0.46)	0.03837 (0.92)
Language_Task_Median_RT	0.01322 (0.46)	0.03212 (0.982)	0.08337 (0.002)
Language_Task_Story_Acc	0.06674 (0.372)	0.1578 (0.116)	0.0537 (0.652)
Language_Task_Story_Avg_Difficulty_Level	0.1452 (p < 0.00017)	0.2912 (p < 0.00017)	0.1988 (p < 0.00017)
Language_Task_Story_Median_RT	0.02275 (0.6)	0.04735 (0.984)	0.1086 (p < 0.00017)
LifeSatisf_Unadj	0.00416 (0.994)	0.04078 (0.444)	0.171 (p < 0.00017)
ListSort_AgeAdj	0.1442 (0.002)	0.1419 (0.036)	0.07941 (0.308)
ListSort_Unadj	0.1458 (p < 0.00017)	0.1753 (0.008)	0.1023 (0.096)
Loneliness_Unadj	0.03124 (0.454)	0.1685 (0.002)	0.1438 (0.004)
Mars_Errs	0.02705 (0.2)	0.0454 (0.058)	0.02742 (0.282)
Mars_Final	0.1788 (0.014)	0.07442 (0.004)	0.132 (p < 0.00017)
Mars_Log_Score	0.1183 (0.468)	0.07019 (p < 0.00017)	0.1992 (p < 0.00017)
MeanPurp_Unadj	0.02644 (0.926)	0.1062 (0.93)	0.1066 (0.178)
MMSE_Score	0.1033 (0.104)	0.04403 (0.992)	0.01122 (0.466)
Noise_Comp	0.01296 (0.644)	0.01128 (1)	0.02319 (1)
Num_Days_Drank_7days	0.04344 (0.074)	0.09696 (0.016)	0.1031 (0.012)

Num_Days_Used_Any_Tobacco_7days	0.03505 (0.15)	0.0551 (0.076)	0.1166 (0.464)
Odor_AgeAdj	0.08045 (0.698)	0.08932 (0.984)	0.06853 (0.232)
Odor_Unadj	0.04933 (0.98)	0.07831 (0.98)	0.09485 (0.032)
PainIntens_RawScore	0.04015 (0.99)	0.05036 (0.908)	0.06019 (0.124)
PainInterf_Tscore	0.03931 (0.788)	0.09455 (0.032)	0.06811 (0.098)
PercHostil_Unadj	0.01144 (0.566)	0.04325 (0.916)	0.02994 (0.99)
PercReject_Unadj	0.01369 (0.738)	0.06467 (0.064)	0.08444 (p < 0.00017)
PercStress_Unadj	0.01992 (0.996)	0.06015 (0.378)	0.1454 (0.16)
PicSeq_AgeAdj	0.04529 (0.058)	0.08716 (p < 0.00017)	0.01876 (0.966)
PicSeq_Unadj	0.04533 (0.106)	0.1148 (p < 0.00017)	0.01973 (0.962)
PicVocab_AgeAdj	0.1851 (p < 0.00017)	0.2852 (p < 0.00017)	0.2081 (p < 0.00017)
PicVocab_Unadj	0.1468 (p < 0.00017)	0.2299 (p < 0.00017)	0.1725 (p < 0.00017)
PMAT24_A_CR	0.1784 (p < 0.00017)	0.3322 (p < 0.00017)	0.2658 (p < 0.00017)
PMAT24_A_RTcr	0.1106 (p < 0.00017)	0.1246 (0.192)	0.1336 (0.064)
PMAT24_A_SI	0.1089 (p < 0.00017)	0.296 (p < 0.00017)	0.2141 (p < 0.00017)
PosAffect_Unadj	0.0677 (0.36)	0.06102 (0.054)	0.05721 (0.516)
ProcSpeed_AgeAdj	0.1034 (0.004)	0.1833 (p < 0.00017)	0.02146 (0.736)
ProcSpeed_Unadj	0.1117 (0.012)	0.1894 (p < 0.00017)	0.03909 (0.492)
PSQI_AmtSleep	0.04891 (0.938)	0.07285 (0.082)	0.02219 (0.984)
PSQI_BadDream	0.01768 (0.31)	0.01125 (0.914)	0.09814 (0.004)
PSQI_Bathroom	0.05346 (0.476)	0.17 (0.024)	0.04253 (0.046)
PSQI_BedPtnrRmate	0.1257 (0.01)	0.07737 (0.108)	0.09661 (0.62)
PSQI_BedTime	0.04182 (0.772)	0.04656 (0.856)	0.07548 (0.694)
PSQI_Breathe	0 (1)	0 (1)	0.005162 (p < 0.00017)
PSQI_Comp1	0.05984 (0.08)	0.1554 (0.104)	0.1277 (0.012)
PSQI_Comp2	0.02072 (0.98)	0.04325 (0.668)	0.02883 (0.322)
PSQI_Comp3	0.09392 (0.528)	0.04505 (0.304)	0.04457 (1)

PSQI_Comp4	0.006031 (0.35)	0.1483 (0.062)	0.1134 (0.224)
PSQI_Comp5	0.03066 (0.998)	0.03075 (0.95)	0.09449 (0.084)
PSQI_Comp6	0.01078 (0.01)	0 (1)	0.056 (0.45)
PSQI_Comp7	0.01902 (0.994)	0.02494 (0.764)	0.02641 (0.768)
PSQI_DayEnthusiasm	0.006469 (0.986)	0.04113 (0.32)	0.01757 (0.854)
PSQI_DayStayAwake	0.1019 (0.206)	0.03207 (0.616)	0.02738 (0.914)
PSQI_GetUpTime	0.04618 (0.136)	0.1234 (0.816)	0.1067 (0.062)
PSQI_Latency30Min	0.01485 (1)	0.02301 (0.91)	0.01842 (0.958)
PSQI_Min2Asleep	0.04011 (0.496)	0.03721 (0.252)	0.03572 (0.13)
PSQI_Other	0.01048 (0.806)	0.04049 (0.086)	0.06404 (0.238)
PSQI_Pain	0.02356 (0.498)	0.07923 (0.452)	0.05176 (0.318)
PSQI_Quality	0.06476 (0.072)	0.1565 (0.1)	0.1173 (0.036)
PSQI_Score	0.04591 (0.926)	0.09542 (0.026)	0.01746 (0.998)
PSQI_SleepMeds	0.008114 (0.008)	0 (1)	0.05716 (0.46)
PSQI_Snore	0 (1)	0 (1)	0.07943 (0.004)
PSQI_TooCold	0.1232 (0.006)	0.1034 (0.74)	0.09813 (0.01)
PSQI_TooHot	0.09582 (0.14)	0.04986 (0.988)	0.2652 (p < 0.00017)
PSQI_WakeUp	0.0746 (0.364)	0.08027 (0.702)	0.1076 (0.514)
Race	0.1039 (0.172)	0.03169 (0.19)	0.09321 (0.136)
ReadEng_AgeAdj	0.1575 (p < 0.00017)	0.1962 (p < 0.00017)	0.08739 (0.312)
ReadEng_Unadj	0.1401 (p < 0.00017)	0.1963 (p < 0.00017)	0.07679 (0.332)
Relational_Task_Acc	0.149 (0.51)	0.2611 (p < 0.00017)	0.2185 (p < 0.00017)
Relational_Task_Match_Acc	0.08294 (0.928)	0.2172 (p < 0.00017)	0.1587 (0.004)
Relational_Task_Match_Median_RT	0.03286 (0.656)	0.1809 (p < 0.00017)	0.04914 (0.166)
Relational_Task_Median_RT	0.08167 (0.072)	0.1626 (p < 0.00017)	0.04962 (0.112)
Relational_Task_Rel_Acc	0.08369 (0.166)	0.19 (0.002)	0.1732 (p < 0.00017)
Relational_Task_Rel_Median_RT	0.04367 (0.144)	0.1614 (0.004)	0.04979 (0.082)



Sadness_Unadj	0.05353 (0.978)	0.1862 (p < 0.00017)	0.08455 (0.01)
SCPT_FN	0.01927 (0.4)	0.0533 (0.53)	0.08312 (0.438)
SCPT_FP	0.1082 (0.03)	0.06666 (0.162)	0.1727 (p < 0.00017)
SCPT_LRNR	0.02659 (0.616)	0.07872 (0.204)	0.02834 (0.446)
SCPT_SEN	0.02273 (0.338)	0.05043 (0.558)	0.08369 (0.444)
SCPT_SPEC	0.109 (0.064)	0.05526 (0.292)	0.168 (p < 0.00017)
SCPT_TN	0.1142 (0.04)	0.06923 (0.146)	0.1822 (p < 0.00017)
SCPT_TPRT	0.06804 (0.016)	0.06112 (0.09)	0.1209 (0.082)
SCPT_TP	0.02359 (0.304)	0.04133 (0.708)	0.07684 (0.502)
SelfEff_Unadj	0.07442 (0.606)	0.07477 (0.008)	0.1221 (p < 0.00017)
Social_Task_Perc_Random	0.09283 (0.15)	0.03225 (0.188)	0.02052 (0.702)
Social_Task_Perc_TOM	0.08755 (0.948)	0.1371 (0.102)	0.05143 (0.314)
Social_Task_Perc_Unsure	0.05987 (0.91)	0.08454 (0.006)	0.02264 (0.812)
Social_Task_Random_Perc_Random	0.05317 (0.492)	0.05769 (0.05)	0.01927 (0.74)
Social_Task_Random_Perc_TOM	0.001552 (0.382)	0.02132 (0.136)	0.01038 (0.08)
Social_Task_Random_Perc_Unsure	0.02944 (0.834)	0.03851 (0.166)	0.04251 (0.154)
Social_Task_TOM_Median_RT_TOM	0.03263 (0.26)	0.04098 (0.868)	0.08503 (0.23)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.1127 (0.524)	0.1452 (0.004)	0.08411 (0.012)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.0314 (0.134)
SSAGA_Alc_D4_Dp_Sx	0.0723 (0.08)	0.1332 (0.008)	0.0704 (0.82)
SSAGA_BMICatHeaviest	0.1954 (p < 0.00017)	0.1201 (0.036)	0.2257 (0.004)
SSAGA_BMICat	0.1513 (0.132)	0.1385 (p < 0.00017)	0.2858 (p < 0.00017)
SSAGA_ChildhoodConduct	0.03607 (0.144)	0.178 (p < 0.00017)	0.112 (0.412)
SSAGA_Depressive_Sx	0.09307 (0.362)	0.1093 (0.02)	0.1659 (0.002)
SSAGA_Educ	0.107 (p < 0.00017)	0.05218 (0.046)	0.06245 (0.36)
SSAGA_Income	0.05909 (0.012)	0.08589 (0.018)	0.07241 (0.896)
SSAGA_Mj_Times_Used	0.08426 (0.464)	0.02284 (0.716)	0.1414 (0.152)

SSAGA_TB_Smoking_History	0.1158 (p < 0.00017)	0.03145 (0.84)	0.05024 (0.06)
SSAGA_Times_Used_Hallucinogens	0.0155 (p < 0.00017)	0 (1)	0.1219 (0.012)
SSAGA_Times_Used_Illicits	0.2228 (p < 0.00017)	0.07953 (0.746)	0.07282 (0.158)
Strength_AgeAdj	0.4289 (p < 0.00017)	0.4157 (p < 0.00017)	0.484 (p < 0.00017)
Strength_Unadj	0.4335 (p < 0.00017)	0.4461 (p < 0.00017)	0.5064 (p < 0.00017)
Taste_AgeAdj	0.09752 (0.03)	0.06446 (0.678)	0.04885 (0.022)
Taste_Unadj	0.086 (0.042)	0.07372 (0.632)	0.04753 (0.034)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)
Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.09837 (p < 0.00017)	0.1594 (0.022)	0.1357 (0.004)
VSPLOT_CRTE	0.06149 (0.004)	0.1058 (0.044)	0.02863 (0.23)
VSPLOT_OFF	0.0776 (0.196)	0.2072 (0.002)	0.1401 (0.01)
VSPLOT_TC	0.05993 (0.144)	0.1153 (0.06)	0.1682 (p < 0.00017)
Weight	0.3632 (p < 0.00017)	0.3564 (p < 0.00017)	0.4727 (p < 0.00017)
WM_Task_Obk_Acc	0.02807 (0.948)	0.1048 (0.024)	0.0415 (0.872)
WM_Task_Obk_Body_Acc	0.04846 (0.994)	0.07288 (0.012)	0.05364 (0.932)
WM_Task_Obk_Body_Acc_Nontarget	0.09662 (0.998)	0.05246 (0.018)	0.0425 (0.754)
WM_Task_Obk_Body_Acc_Target	0.03061 (0.92)	0.05948 (0.406)	0.05171 (0.936)
WM_Task_Obk_Body_Median_RT	0.07963 (0.752)	0.08491 (0.896)	0.04787 (0.24)
WM_Task_Obk_Body_Median_RT_Non target	0.07476 (0.986)	0.08043 (0.962)	0.06678 (0.14)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.01044 (0.988)	0.1356 (0.81)	0.1296 (0.024)
WM_Task_Obk_Face_ACC_Nontarget	0.02029 (0.966)	0.1031 (0.91)	0.1262 (0.056)
WM_Task_Obk_Face_Acc_Target	0.01286 (0.718)	0.07196 (0.426)	0.06552 (0.928)
WM_Task_Obk_Face_Median_RT	0.03861 (0.92)	0.08276 (0.128)	0.02135 (0.528)
WM_Task_Obk_Face_Median_RT_Nontarget	0.05854 (0.918)	0.07523 (0.248)	0.02286 (0.184)

WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.117 (0.248)	0.1633 (0.04)	0.02709 (0.55)
WM_Task_Obk_Place_Acc	0.016 (0.642)	0.07657 (0.04)	0.08268 (0.01)
WM_Task_Obk_Place_Acc_Nontarget	0.01355 (0.548)	0.1034 (p < 0.00017)	0.1137 (0.002)
WM_Task_Obk_Place_Acc_Target	0.02126 (0.936)	0.08424 (0.016)	0.05173 (0.262)
WM_Task_Obk_Place_Median_RT	0.03693 (0.846)	0.104 (0.618)	0.01525 (0.25)
WM_Task_Obk_Place_Median_RT_Nontarget	0.07562 (0.48)	0.08102 (0.824)	0.03303 (0.016)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.06104 (0.322)	0.1086 (0.03)	0.006878 (0.978)
WM_Task_Obk_Tool_Acc_Nontarget	0.05537 (0.674)	0.1506 (p < 0.00017)	0.03127 (0.884)
WM_Task_Obk_Tool_Acc_Target	0.1011 (0.038)	0.1079 (0.008)	0.005486 (1)
WM_Task_Obk_Tool_Median_RT	0.07914 (0.48)	0.1461 (p < 0.00017)	0.03992 (0.744)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.04806 (0.876)	0.1398 (p < 0.00017)	0.04819 (0.582)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.2405 (p < 0.00017)	0.2718 (p < 0.00017)	0.1647 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.1879 (p < 0.00017)	0.2372 (0.016)	0.1545 (0.004)
WM_Task_2bk_Body_Acc_Nontarget	0.1503 (p < 0.00017)	0.1637 (0.002)	0.1125 (0.002)
WM_Task_2bk_Body_Acc_Target	0.1728 (0.05)	0.2005 (0.006)	0.1226 (0.102)
WM_Task_2bk_Body_Median_RT	0.09859 (0.786)	0.1593 (p < 0.00017)	0.05054 (0.186)
WM_Task_2bk_Body_Median_RT_Nontarget	0.1144 (0.94)	0.1167 (0.314)	0.0582 (0.272)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1939 (0.002)	0.2456 (p < 0.00017)	0.1313 (0.03)
WM_Task_2bk_Face_Acc_Nontarget	0.1697 (0.09)	0.1428 (p < 0.00017)	0.1506 (p < 0.00017)
WM_Task_2bk_Face_Acc_Target	0.1799 (p < 0.00017)	0.2864 (p < 0.00017)	0.1583 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.1128 (0.41)	0.0515 (0.974)	0.0455 (0.872)
WM_Task_2bk_Face_Median_RT_Nontarget	0.09393 (0.616)	0.04161 (0.998)	0.04415 (0.796)

WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.126 (0.56)	0.1396 (0.07)	0.06787 (0.354)
WM_Task_2bk_Place_Acc	0.2044 (p < 0.00017)	0.1321 (0.094)	0.05422 (0.678)
WM_Task_2bk_Place_Acc_Nontarget	0.136 (p < 0.00017)	0.1316 (0.05)	0.04326 (0.948)
WM_Task_2bk_Place_Acc_Target	0.126 (0.032)	0.05013 (0.89)	0.1272 (0.098)
WM_Task_2bk_Place_Median_RT	0.05443 (0.886)	0.08684 (0.33)	0.06413 (0.868)
WM_Task_2bk_Place_Median_RT_Nontarget	0.07734 (0.434)	0.1105 (0.192)	0.05951 (0.92)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Tool_Acc	0.1198 (p < 0.00017)	0.1313 (0.244)	0.107 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.1329 (p < 0.00017)	0.1523 (0.384)	0.0611 (0.014)
WM_Task_2bk_Tool_Acc_Target	0.04123 (0.45)	0.132 (p < 0.00017)	0.07779 (0.474)
WM_Task_2bk_Tool_Median_RT	0.1136 (0.656)	0.1002 (0.254)	0.04023 (0.726)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1286 (0.312)	0.1388 (0.032)	0.02862 (0.984)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1207 (0.014)	0.2897 (p < 0.00017)	0.1731 (p < 0.00017)
WM_Task_Median_RT	0.111 (0.89)	0.1228 (0.532)	0.05666 (0.058)
ZygositySR	0 (1)	0 (1)	0 (1)

176 volumes   All subjects			
	tfMRI_GAMBLI NG	tfMRI_LANGUA GE	tfMRI_MOTOR
Age_in_Yrs	0.1679 (p < 0.00017)	0.3145 (p < 0.00017)	0.2152 (p < 0.00017)
AngAffect_Unadj	0.02682 (0.878)	0.1581 (p < 0.00017)	0.04558 (0.13)
AngAggr_Unadj	0.1115 (0.002)	0.2545 (p < 0.00017)	0.0776 (0.224)
AngHostil_Unadj	0.03152 (0.998)	0.02981 (0.096)	0.02172 (0.88)
ASR_Aggr_Raw	0.06841 (0.542)	0.121 (0.002)	0.1211 (0.078)
ASR_Aggr_T	0.05565 (0.902)	0.0933 (0.03)	0.1065 (0.164)
ASR_Anxd_Pct	0.02722 (0.998)	0.1591 (p < 0.00017)	0.1065 (p < 0.00017)

ASR_Anxd_Raw	0.04211 (0.936)	0.1689 (p < 0.00017)	0.112 (0.002)
ASR_Attn_Raw	0.01909 (0.852)	0.09064 (0.856)	0.007231 (0.614)
ASR_Attn_T	0.05172 (0.042)	0.0823 (0.834)	0.003104 (0.842)
ASR_Crit_Raw	0.05012 (0.004)	0.05197 (0.014)	0.05012 (0.658)
ASR_Extn_Raw	0.09744 (0.012)	0.07705 (0.01)	0.2107 (p < 0.00017)
ASR_Extn_T	0.08521 (0.004)	0.04079 (0.204)	0.2043 (p < 0.00017)
ASR_Intn_Raw	0.05646 (0.852)	0.1474 (p < 0.00017)	0.07082 (0.302)
ASR_Intn_T	0.03155 (0.948)	0.136 (0.004)	0.07894 (0.236)
ASR_Intr_Raw	0.1026 (0.002)	0.02743 (0.752)	0.1713 (p < 0.00017)
ASR_Intr_T	0.1109 (p < 0.00017)	0.0196 (0.576)	0.1832 (p < 0.00017)
ASR_Oth_Raw	0.04809 (0.888)	0.08233 (0.776)	0.1039 (0.074)
ASR_Rule_Raw	0.136 (p < 0.00017)	0.09116 (0.002)	0.2464 (p < 0.00017)
ASR_Rule_T	0.07133 (0.042)	0.04485 (0.338)	0.1884 (p < 0.00017)
ASR_Soma_Raw	0.03641 (0.234)	0.06049 (0.014)	0.06236 (0.476)
ASR_Soma_T	0.03996 (0.284)	0.0782 (0.02)	0.07632 (0.116)
ASR_TAO_Sum	0.05431 (0.526)	0.08101 (0.818)	0.04501 (0.676)
ASR_Thot_Raw	0.04646 (0.494)	0.05405 (0.704)	0.03026 (0.998)
ASR_Thot_T	0.05948 (0.41)	0.08099 (0.704)	0.05151 (0.956)
ASR_Totp_Raw	0.05946 (0.554)	0.1167 (0.09)	0.07189 (0.506)
ASR_Totp_T	0.05882 (0.444)	0.1019 (0.172)	0.07982 (0.404)
ASR_Witd_Raw	0.06209 (0.06)	0.07222 (0.31)	0.09359 (0.084)
ASR_Witd_T	0.06677 (0.05)	0.09848 (0.098)	0.05744 (0.308)
Avg_Weekday_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekday_Drinks_7days	0.1345 (p < 0.00017)	0.1266 (0.002)	0.143 (p < 0.00017)
Avg_Weekend_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)

Avg_Weekend_Chew_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Avg_Weekend_Drinks_7days	0.08881 (0.01)	0.08099 (0.588)	0.1171 (0.074)
BMI	0.2817 (p < 0.00017)	0.18 (p < 0.00017)	0.3291 (p < 0.00017)
BPDiastolic	0.1043 (0.002)	0.129 (p < 0.00017)	0.2494 (p < 0.00017)
BPSystolic	0.3046 (p < 0.00017)	0.3203 (p < 0.00017)	0.3291 (p < 0.00017)
CardSort_AgeAdj	0.01258 (0.97)	0.03319 (0.744)	0.1508 (p < 0.00017)
CardSort_Unadj	0.03325 (0.938)	0.03632 (0.962)	0.1983 (p < 0.00017)
CogCrystalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogCrystalComp_Unadj	0 (1)	0 (1)	0 (1)
CogEarlyComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogEarlyComp_Unadj	0 (1)	0 (1)	0 (1)
CogFluidComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogFluidComp_Unadj	0 (1)	0 (1)	0 (1)
CogTotalComp_AgeAdj	0 (1)	0 (1)	0 (1)
CogTotalComp_Unadj	0 (1)	0 (1)	0 (1)
DDisc_AUC_200	0.1526 (p < 0.00017)	0.08756 (0.008)	0.03078 (0.884)
DDisc_AUC_40K	0.1177 (p < 0.00017)	0.1764 (p < 0.00017)	0.09368 (0.014)
DDisc_SV_10yr_200	0.03787 (0.782)	0.07064 (0.19)	0.0358 (0.81)
DDisc_SV_10yr_40K	0.06472 (0.002)	0.1538 (p < 0.00017)	0.05061 (0.094)
DDisc_SV_1mo_200	0.05736 (0.276)	0.06943 (0.068)	0.03863 (0.902)
DDisc_SV_1mo_40K	0.04266 (0.012)	0.08724 (0.016)	0.06129 (0.998)
DDisc_SV_1yr_200	0.159 (p < 0.00017)	0.1102 (p < 0.00017)	0.0541 (0.072)
DDisc_SV_1yr_40K	0.1127 (p < 0.00017)	0.08324 (0.012)	0.08316 (0.052)
DDisc_SV_3yr_200	0.1135 (p < 0.00017)	0.1691 (p < 0.00017)	0.04373 (0.752)
DDisc_SV_3yr_40K	0.1332 (p < 0.00017)	0.06372 (0.044)	0.05751 (0.378)
DDisc_SV_5yr_200	0.1652 (p < 0.00017)	0.1046 (0.004)	0.01301 (0.996)
DDisc_SV_5yr_40K	0.1571 (p < 0.00017)	0.2008 (p < 0.00017)	0.105 (0.004)
DDisc_SV_6mo_200	0.07077 (p < 0.00017)	0.06691 (0.13)	0.0326 (0.992)
DDisc_SV_6mo_40K	0.0552 (0.026)	0.05748 (0.224)	0.0531 (0.806)

Dexterity_AgeAdj	0.1623 (0.018)	0.2016 (p < 0.00017)	0.1524 (p < 0.00017)
Dexterity_Unadj	0.1661 (0.022)	0.221 (p < 0.00017)	0.1675 (p < 0.00017)
DSM_Adh_Raw	0.01853 (0.942)	0.079 (0.118)	0.009333 (0.758)
DSM_Adh_T	0.0267 (0.676)	0.0857 (0.184)	0.01378 (0.796)
DSM_Antis_Raw	0.1403 (p < 0.00017)	0.2192 (p < 0.00017)	0.2117 (p < 0.00017)
DSM_Antis_T	0.1127 (0.012)	0.1113 (0.008)	0.1079 (0.014)
DSM_Anxi_Raw	0.04352 (0.694)	0.1445 (p < 0.00017)	0.111 (0.004)
DSM_Anxi_T	0.01062 (0.988)	0.1263 (0.034)	0.07251 (0.02)
DSM_Avoid_Raw	0.02538 (0.886)	0.1013 (0.082)	0.09809 (0.182)
DSM_Avoid_T	0.03181 (0.624)	0.1024 (0.048)	0.06523 (0.356)
DSM_Depr_Raw	0.06896 (0.62)	0.128 (0.004)	0.03715 (0.044)
DSM_Depr_T	0.0808 (0.218)	0.1386 (0.002)	0.03374 (0.092)
DSM_Hype_Raw	0.0519 (0.926)	0.05737 (0.058)	0.04086 (0.642)
DSM_Inat_Raw	0.006746 (0.966)	0.07227 (0.954)	0.002194 (0.896)
DSM_Somp_Raw	0.04611 (0.308)	0.07951 (0.024)	0.07321 (0.74)
DSM_Somp_T	0.04165 (0.45)	0.0741 (0.014)	0.07373 (0.62)
Emotion_Task_Acc	0.05815 (0.032)	0.1119 (0.026)	0.09739 (0.072)
Emotion_Task_Face_Acc	0.05182 (0.948)	0.03712 (0.958)	0.07025 (0.014)
Emotion_Task_Face_Median_RT	0.05019 (0.986)	0.1353 (0.21)	0.1002 (p < 0.00017)
Emotion_Task_Median_RT	0.09447 (0.698)	0.213 (0.01)	0.1196 (0.002)
Emotion_Task_Shape_Acc	0.07046 (0.226)	0.08159 (0.156)	0.06592 (0.518)
Emotion_Task_Shape_Median_RT	0.08062 (0.196)	0.2659 (0.01)	0.1165 (0.004)
EmotSupp_Unadj	0.02058 (0.86)	0.06011 (0.908)	0.0193 (0.472)
Endurance_AgeAdj	0.1802 (p < 0.00017)	0.07612 (0.28)	0.1316 (p < 0.00017)
Endurance_Unadj	0.1941 (p < 0.00017)	0.0977 (0.172)	0.1423 (p < 0.00017)
ER40ANG	0.01717 (1)	0.1558 (0.082)	0.05824 (0.176)
ER40FEAR	0.04038 (0.754)	0.04367 (0.458)	0.05465 (0.662)

ER40NOE	0.0221 (1)	0.02066 (0.512)	0.07065 (0.988)
ER40SAD	0.01885 (0.912)	0.03491 (0.22)	0.08895 (0.148)
ER40_CRT	0.01721 (0.936)	0.1089 (0.128)	0.027 (0.992)
ER40_CR	0.0124 (0.984)	0.08177 (0.02)	0.1159 (0.23)
EVA_Denom	0.08607 (0.084)	0.01035 (0.366)	0.02849 (0.66)
FearAffect_Unadj	0.06768 (0.052)	0.05235 (0.526)	0.1163 (0.01)
FearSomat_Unadj	0.1107 (0.212)	0.01888 (0.994)	0.1495 (p < 0.00017)
Flanker_AgeAdj	0.1504 (0.04)	0.06197 (0.968)	0.2077 (0.002)
Flanker_Unadj	0.1475 (0.096)	0.1354 (0.298)	0.2273 (p < 0.00017)
Friendship_Unadj	0.06348 (0.076)	0.04301 (0.888)	0.1736 (p < 0.00017)
GaitSpeed_Comp	0.2021 (p < 0.00017)	0.0738 (0.754)	0.08233 (0.16)
Gambling_Task_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Median_RT_Smaller	0.0743 (0.13)	0.07047 (0.078)	0.2509 (p < 0.00017)
Gambling_Task_Perc_Larger	0.03781 (0.974)	0.02744 (0.998)	0.03401 (0.928)
Gambling_Task_Perc_Smaller	0.03971 (0.968)	0.02599 (0.998)	0.03632 (0.916)
Gambling_Task_Punish_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Punish_Median_RT_Smaller	0.1027 (0.014)	0.08738 (0.09)	0.2619 (p < 0.00017)
Gambling_Task_Punish_Perc_Larger	0.04866 (0.922)	0.01091 (0.84)	0.01386 (0.86)
Gambling_Task_Punish_Perc_Smaller	0.04502 (0.92)	0.01199 (0.82)	0.01364 (0.902)
Gambling_Task_Reward_Median_RT_Larger	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Median_RT_Smaller	0 (1)	0 (1)	0 (1)
Gambling_Task_Reward_Perc_Larger	0.07665 (0.354)	0.02067 (1)	0.03364 (0.642)
Gambling_Task_Reward_Perc_Smaller	0.076 (0.368)	0.02306 (1)	0.03518 (0.654)
Handedness	0.1624 (p < 0.00017)	0.08211 (0.508)	0.03429 (0.914)
Height	0.4411 (p < 0.00017)	0.384 (p < 0.00017)	0.4631 (p < 0.00017)
InstruSupp_Unadj	0.03534 (0.408)	0.04282 (0.4)	0.1033 (0.07)
IWRD_RTC	0.03021 (0.94)	0.1356 (0.004)	0.04142 (0.796)



IWRD_TOT	0.03915 (0.776)	0.0199 (0.606)	0.02595 (0.934)
Language_Task_Acc	0.1131 (p < 0.00017)	0.2526 (p < 0.00017)	0.1067 (0.862)
Language_Task_Math_Acc	0.1848 (p < 0.00017)	0.2238 (p < 0.00017)	0.0638 (0.954)
Language_Task_Math_Avg_Difficulty_Level	0.03251 (0.256)	0.2683 (p < 0.00017)	0.1057 (0.878)
Language_Task_Math_Median_RT	0.01402 (0.826)	0.02302 (0.46)	0.03837 (0.92)
Language_Task_Median_RT	0.01322 (0.46)	0.03212 (0.982)	0.08337 (0.002)
Language_Task_Story_Acc	0.06674 (0.372)	0.1578 (0.116)	0.0537 (0.652)
Language_Task_Story_Avg_Difficulty_Level	0.1452 (p < 0.00017)	0.2912 (p < 0.00017)	0.1988 (p < 0.00017)
Language_Task_Story_Median_RT	0.02275 (0.6)	0.04735 (0.984)	0.1086 (p < 0.00017)
LifeSatisf_Unadj	0.00416 (0.994)	0.04078 (0.444)	0.171 (p < 0.00017)
ListSort_AgeAdj	0.1442 (0.002)	0.1419 (0.036)	0.07941 (0.308)
ListSort_Unadj	0.1458 (p < 0.00017)	0.1753 (0.008)	0.1023 (0.096)
Loneliness_Unadj	0.03124 (0.454)	0.1685 (0.002)	0.1438 (0.004)
Mars_Errs	0.02705 (0.2)	0.0454 (0.058)	0.02742 (0.282)
Mars_Final	0.1788 (0.014)	0.07442 (0.004)	0.132 (p < 0.00017)
Mars_Log_Score	0.1183 (0.468)	0.07019 (p < 0.00017)	0.1992 (p < 0.00017)
MeanPurp_Unadj	0.02644 (0.926)	0.1062 (0.93)	0.1066 (0.178)
MMSE_Score	0.1033 (0.104)	0.04403 (0.992)	0.01122 (0.466)
Noise_Comp	0.01296 (0.644)	0.01128 (1)	0.02319 (1)
Num_Days_Drank_7days	0.04344 (0.074)	0.09696 (0.016)	0.1031 (0.012)
Num_Days_Used_Any_Tobacco_7days	0.03505 (0.15)	0.0551 (0.076)	0.1166 (0.464)
Odor_AgeAdj	0.08045 (0.698)	0.08932 (0.984)	0.06853 (0.232)
Odor_Unadj	0.04933 (0.98)	0.07831 (0.98)	0.09485 (0.032)
PainIntens_RawScore	0.04015 (0.99)	0.05036 (0.908)	0.06019 (0.124)
PainInterf_Tscore	0.03931 (0.788)	0.09455 (0.032)	0.06811 (0.098)
PercHostil_Unadj	0.01144 (0.566)	0.04325 (0.916)	0.02994 (0.99)
PercReject_Unadj	0.01369 (0.738)	0.06467 (0.064)	0.08444 (p < 0.00017)
PercStress_Unadj	0.01992 (0.996)	0.06015 (0.378)	0.1454 (0.16)

PicSeq_AgeAdj	0.04529 (0.058)	0.08716 (p < 0.00017)	0.01876 (0.966)
PicSeq_Unadj	0.04533 (0.106)	0.1148 (p < 0.00017)	0.01973 (0.962)
PicVocab_AgeAdj	0.1851 (p < 0.00017)	0.2852 (p < 0.00017)	0.2081 (p < 0.00017)
PicVocab_Unadj	0.1468 (p < 0.00017)	0.2299 (p < 0.00017)	0.1725 (p < 0.00017)
PMAT24_A_CR	0.1784 (p < 0.00017)	0.3322 (p < 0.00017)	0.2658 (p < 0.00017)
PMAT24_A_RTcr	0.1106 (p < 0.00017)	0.1246 (0.192)	0.1336 (0.064)
PMAT24_A_Sl	0.1089 (p < 0.00017)	0.296 (p < 0.00017)	0.2141 (p < 0.00017)
PosAffect_Unadj	0.0677 (0.36)	0.06102 (0.054)	0.05721 (0.516)
ProcSpeed_AgeAdj	0.1034 (0.004)	0.1833 (p < 0.00017)	0.02146 (0.736)
ProcSpeed_Unadj	0.1117 (0.012)	0.1894 (p < 0.00017)	0.03909 (0.492)
PSQI_AmtSleep	0.04891 (0.938)	0.07285 (0.082)	0.02219 (0.984)
PSQI_BadDream	0.01768 (0.31)	0.01125 (0.914)	0.09814 (0.004)
PSQI_Bathroom	0.05346 (0.476)	0.17 (0.024)	0.04253 (0.046)
PSQI_BedPtnrRmate	0.1257 (0.01)	0.07737 (0.108)	0.09661 (0.62)
PSQI_BedTime	0.04182 (0.772)	0.04656 (0.856)	0.07548 (0.694)
PSQI_Breathe	0 (1)	0 (1)	0.005162 (p < 0.00017)
PSQI_Comp1	0.05984 (0.08)	0.1554 (0.104)	0.1277 (0.012)
PSQI_Comp2	0.02072 (0.98)	0.04325 (0.668)	0.02883 (0.322)
PSQI_Comp3	0.09392 (0.528)	0.04505 (0.304)	0.04457 (1)
PSQI_Comp4	0.006031 (0.35)	0.1483 (0.062)	0.1134 (0.224)
PSQI_Comp5	0.03066 (0.998)	0.03075 (0.95)	0.09449 (0.084)
PSQI_Comp6	0.01078 (0.01)	0 (1)	0.056 (0.45)
PSQI_Comp7	0.01902 (0.994)	0.02494 (0.764)	0.02641 (0.768)
PSQI_DayEnthusiasm	0.006469 (0.986)	0.04113 (0.32)	0.01757 (0.854)
PSQI_DayStayAwake	0.1019 (0.206)	0.03207 (0.616)	0.02738 (0.914)
PSQI_GetUpTime	0.04618 (0.136)	0.1234 (0.816)	0.1067 (0.062)
PSQI_Latency30Min	0.01485 (1)	0.02301 (0.91)	0.01842 (0.958)

PSQI_Min2Asleep	0.04011 (0.496)	0.03721 (0.252)	0.03572 (0.13)
PSQI_Other	0.01048 (0.806)	0.04049 (0.086)	0.06404 (0.238)
PSQI_Pain	0.02356 (0.498)	0.07923 (0.452)	0.05176 (0.318)
PSQI_Quality	0.06476 (0.072)	0.1565 (0.1)	0.1173 (0.036)
PSQI_Score	0.04591 (0.926)	0.09542 (0.026)	0.01746 (0.998)
PSQI_SleepMeds	0.008114 (0.008)	0 (1)	0.05716 (0.46)
PSQI_Snore	0 (1)	0 (1)	0.07943 (0.004)
PSQI_TooCold	0.1232 (0.006)	0.1034 (0.74)	0.09813 (0.01)
PSQI_TooHot	0.09582 (0.14)	0.04986 (0.988)	0.2652 (p < 0.00017)
PSQI_WakeUp	0.0746 (0.364)	0.08027 (0.702)	0.1076 (0.514)
Race	0.1039 (0.172)	0.03169 (0.19)	0.09321 (0.136)
ReadEng_AgeAdj	0.1575 (p < 0.00017)	0.1962 (p < 0.00017)	0.08739 (0.312)
ReadEng_Unadj	0.1401 (p < 0.00017)	0.1963 (p < 0.00017)	0.07679 (0.332)
Relational_Task_Acc	0.149 (0.51)	0.2611 (p < 0.00017)	0.2185 (p < 0.00017)
Relational_Task_Match_Acc	0.08294 (0.928)	0.2172 (p < 0.00017)	0.1587 (0.004)
Relational_Task_Match_Median_RT	0.03286 (0.656)	0.1809 (p < 0.00017)	0.04914 (0.166)
Relational_Task_Median_RT	0.08167 (0.072)	0.1626 (p < 0.00017)	0.04962 (0.112)
Relational_Task_Rel_Acc	0.08369 (0.166)	0.19 (0.002)	0.1732 (p < 0.00017)
Relational_Task_Rel_Median_RT	0.04367 (0.144)	0.1614 (0.004)	0.04979 (0.082)
Sadness_Unadj	0.05353 (0.978)	0.1862 (p < 0.00017)	0.08455 (0.01)
SCPT_FN	0.01927 (0.4)	0.0533 (0.53)	0.08312 (0.438)
SCPT_FP	0.1082 (0.03)	0.06666 (0.162)	0.1727 (p < 0.00017)
SCPT_LRNR	0.02659 (0.616)	0.07872 (0.204)	0.02834 (0.446)
SCPT_SEN	0.02273 (0.338)	0.05043 (0.558)	0.08369 (0.444)
SCPT_SPEC	0.109 (0.064)	0.05526 (0.292)	0.168 (p < 0.00017)
SCPT_TN	0.1142 (0.04)	0.06923 (0.146)	0.1822 (p < 0.00017)
SCPT_TPRT	0.06804 (0.016)	0.06112 (0.09)	0.1209 (0.082)

SCPT_TP	0.02359 (0.304)	0.04133 (0.708)	0.07684 (0.502)
SelfEff_Unadj	0.07442 (0.606)	0.07477 (0.008)	0.1221 (p < 0.00017)
Social_Task_Perc_Random	0.09283 (0.15)	0.03225 (0.188)	0.02052 (0.702)
Social_Task_Perc_TOM	0.08755 (0.948)	0.1371 (0.102)	0.05143 (0.314)
Social_Task_Perc_Unsure	0.05987 (0.91)	0.08454 (0.006)	0.02264 (0.812)
Social_Task_Random_Perc_Random	0.05317 (0.492)	0.05769 (0.05)	0.01927 (0.74)
Social_Task_Random_Perc_TOM	0.001552 (0.382)	0.02132 (0.136)	0.01038 (0.08)
Social_Task_Random_Perc_Unsure	0.02944 (0.834)	0.03851 (0.166)	0.04251 (0.154)
Social_Task_TOM_Median_RT_TOM	0.03263 (0.26)	0.04098 (0.868)	0.08503 (0.23)
Social_Task_TOM_Perc_Random	0 (1)	0 (1)	0 (1)
Social_Task_TOM_Perc_TOM	0.1127 (0.524)	0.1452 (0.004)	0.08411 (0.012)
Social_Task_TOM_Perc_Unsure	0 (1)	0 (1)	0.0314 (0.134)
SSAGA_Alc_D4_Dp_Sx	0.0723 (0.08)	0.1332 (0.008)	0.0704 (0.82)
SSAGA_BMICatHeaviest	0.1954 (p < 0.00017)	0.1201 (0.036)	0.2257 (0.004)
SSAGA_BMICat	0.1513 (0.132)	0.1385 (p < 0.00017)	0.2858 (p < 0.00017)
SSAGA_ChildhoodConduct	0.03607 (0.144)	0.178 (p < 0.00017)	0.112 (0.412)
SSAGA_Depressive_Sx	0.09307 (0.362)	0.1093 (0.02)	0.1659 (0.002)
SSAGA_Educ	0.107 (p < 0.00017)	0.05218 (0.046)	0.06245 (0.36)
SSAGA_Income	0.05909 (0.012)	0.08589 (0.018)	0.07241 (0.896)
SSAGA_Mj_Times_Used	0.08426 (0.464)	0.02284 (0.716)	0.1414 (0.152)
SSAGA_TB_Smoking_History	0.1158 (p < 0.00017)	0.03145 (0.84)	0.05024 (0.06)
SSAGA_Times_Used_Hallucinogens	0.0155 (p < 0.00017)	0 (1)	0.1219 (0.012)
SSAGA_Times_Used_Illicits	0.2228 (p < 0.00017)	0.07953 (0.746)	0.07282 (0.158)
Strength_AgeAdj	0.4289 (p < 0.00017)	0.4157 (p < 0.00017)	0.484 (p < 0.00017)
Strength_Unadj	0.4335 (p < 0.00017)	0.4461 (p < 0.00017)	0.5064 (p < 0.00017)
Taste_AgeAdj	0.09752 (0.03)	0.06446 (0.678)	0.04885 (0.022)
Taste_Unadj	0.086 (0.042)	0.07372 (0.632)	0.04753 (0.034)
Times_Used_Any_Tobacco_Today	0 (1)	0 (1)	0 (1)

Total_Any_Tobacco_7days	0 (1)	0 (1)	0 (1)
Total_Chew_7days	0 (1)	0 (1)	0 (1)
Total_Cigarettes_7days	0 (1)	0 (1)	0 (1)
Total_Drinks_7days	0.09837 (p < 0.00017)	0.1594 (0.022)	0.1357 (0.004)
VSPLOT_CRTE	0.06149 (0.004)	0.1058 (0.044)	0.02863 (0.23)
VSPLOT_OFF	0.0776 (0.196)	0.2072 (0.002)	0.1401 (0.01)
VSPLOT_TC	0.05993 (0.144)	0.1153 (0.06)	0.1682 (p < 0.00017)
Weight	0.3632 (p < 0.00017)	0.3564 (p < 0.00017)	0.4727 (p < 0.00017)
WM_Task_Obk_Acc	0.02807 (0.948)	0.1048 (0.024)	0.0415 (0.872)
WM_Task_Obk_Body_Acc	0.04846 (0.994)	0.07288 (0.012)	0.05364 (0.932)
WM_Task_Obk_Body_Acc_Nontarget	0.09662 (0.998)	0.05246 (0.018)	0.0425 (0.754)
WM_Task_Obk_Body_Acc_Target	0.03061 (0.92)	0.05948 (0.406)	0.05171 (0.936)
WM_Task_Obk_Body_Median_RT	0.07963 (0.752)	0.08491 (0.896)	0.04787 (0.24)
WM_Task_Obk_Body_Median_RT_Non target	0.07476 (0.986)	0.08043 (0.962)	0.06678 (0.14)
WM_Task_Obk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Face_Acc	0.01044 (0.988)	0.1356 (0.81)	0.1296 (0.024)
WM_Task_Obk_Face_ACC_Nontarget	0.02029 (0.966)	0.1031 (0.91)	0.1262 (0.056)
WM_Task_Obk_Face_Acc_Target	0.01286 (0.718)	0.07196 (0.426)	0.06552 (0.928)
WM_Task_Obk_Face_Median_RT	0.03861 (0.92)	0.08276 (0.128)	0.02135 (0.528)
WM_Task_Obk_Face_Median_RT_Nontarget	0.05854 (0.918)	0.07523 (0.248)	0.02286 (0.184)
WM_Task_Obk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Median_RT	0.117 (0.248)	0.1633 (0.04)	0.02709 (0.55)
WM_Task_Obk_Place_Acc	0.016 (0.642)	0.07657 (0.04)	0.08268 (0.01)
WM_Task_Obk_Place_Acc_Nontarget	0.01355 (0.548)	0.1034 (p < 0.00017)	0.1137 (0.002)
WM_Task_Obk_Place_Acc_Target	0.02126 (0.936)	0.08424 (0.016)	0.05173 (0.262)
WM_Task_Obk_Place_Median_RT	0.03693 (0.846)	0.104 (0.618)	0.01525 (0.25)
WM_Task_Obk_Place_Median_RT_Non target	0.07562 (0.48)	0.08102 (0.824)	0.03303 (0.016)
WM_Task_Obk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Obk_Tool_Acc	0.06104 (0.322)	0.1086 (0.03)	0.006878 (0.978)

WM_Task_Obk_Tool_Acc_Nontarget	0.05537 (0.674)	0.1506 (p < 0.00017)	0.03127 (0.884)
WM_Task_Obk_Tool_Acc_Target	0.1011 (0.038)	0.1079 (0.008)	0.005486 (1)
WM_Task_Obk_Tool_Median_RT	0.07914 (0.48)	0.1461 (p < 0.00017)	0.03992 (0.744)
WM_Task_Obk_Tool_Median_RT_Nontarget	0.04806 (0.876)	0.1398 (p < 0.00017)	0.04819 (0.582)
WM_Task_Obk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Acc	0.2405 (p < 0.00017)	0.2718 (p < 0.00017)	0.1647 (p < 0.00017)
WM_Task_2bk_Body_Acc	0.1879 (p < 0.00017)	0.2372 (0.016)	0.1545 (0.004)
WM_Task_2bk_Body_Acc_Nontarget	0.1503 (p < 0.00017)	0.1637 (0.002)	0.1125 (0.002)
WM_Task_2bk_Body_Acc_Target	0.1728 (0.05)	0.2005 (0.006)	0.1226 (0.102)
WM_Task_2bk_Body_Median_RT	0.09859 (0.786)	0.1593 (p < 0.00017)	0.05054 (0.186)
WM_Task_2bk_Body_Median_RT_Nontarget	0.1144 (0.94)	0.1167 (0.314)	0.0582 (0.272)
WM_Task_2bk_Body_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Face_Acc	0.1939 (0.002)	0.2456 (p < 0.00017)	0.1313 (0.03)
WM_Task_2bk_Face_Acc_Nontarget	0.1697 (0.09)	0.1428 (p < 0.00017)	0.1506 (p < 0.00017)
WM_Task_2bk_Face_Acc_Target	0.1799 (p < 0.00017)	0.2864 (p < 0.00017)	0.1583 (p < 0.00017)
WM_Task_2bk_Face_Median_RT	0.1128 (0.41)	0.0515 (0.974)	0.0455 (0.872)
WM_Task_2bk_Face_Median_RT_Nontarget	0.09393 (0.616)	0.04161 (0.998)	0.04415 (0.796)
WM_Task_2bk_Face_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_2bk_Median_RT	0.126 (0.56)	0.1396 (0.07)	0.06787 (0.354)
WM_Task_2bk_Place_Acc	0.2044 (p < 0.00017)	0.1321 (0.094)	0.05422 (0.678)
WM_Task_2bk_Place_Acc_Nontarget	0.136 (p < 0.00017)	0.1316 (0.05)	0.04326 (0.948)
WM_Task_2bk_Place_Acc_Target	0.126 (0.032)	0.05013 (0.89)	0.1272 (0.098)
WM_Task_2bk_Place_Median_RT	0.05443 (0.886)	0.08684 (0.33)	0.06413 (0.868)
WM_Task_2bk_Place_Median_RT_Nontarget	0.07734 (0.434)	0.1105 (0.192)	0.05951 (0.92)
WM_Task_2bk_Place_Median_RT_Target	0 (1)	0 (1)	0 (1)

WM_Task_2bk_Tool_Acc	0.1198 (p < 0.00017)	0.1313 (0.244)	0.107 (p < 0.00017)
WM_Task_2bk_Tool_Acc_Nontarget	0.1329 (p < 0.00017)	0.1523 (0.384)	0.0611 (0.014)
WM_Task_2bk_Tool_Acc_Target	0.04123 (0.45)	0.132 (p < 0.00017)	0.07779 (0.474)
WM_Task_2bk_Tool_Median_RT	0.1136 (0.656)	0.1002 (0.254)	0.04023 (0.726)
WM_Task_2bk_Tool_Median_RT_Nontarget	0.1286 (0.312)	0.1388 (0.032)	0.02862 (0.984)
WM_Task_2bk_Tool_Median_RT_Target	0 (1)	0 (1)	0 (1)
WM_Task_Acc	0.1207 (0.014)	0.2897 (p < 0.00017)	0.1731 (p < 0.00017)
WM_Task_Median_RT	0.111 (0.89)	0.1228 (0.532)	0.05666 (0.058)
ZygotySR	0 (1)	0 (1)	0 (1)