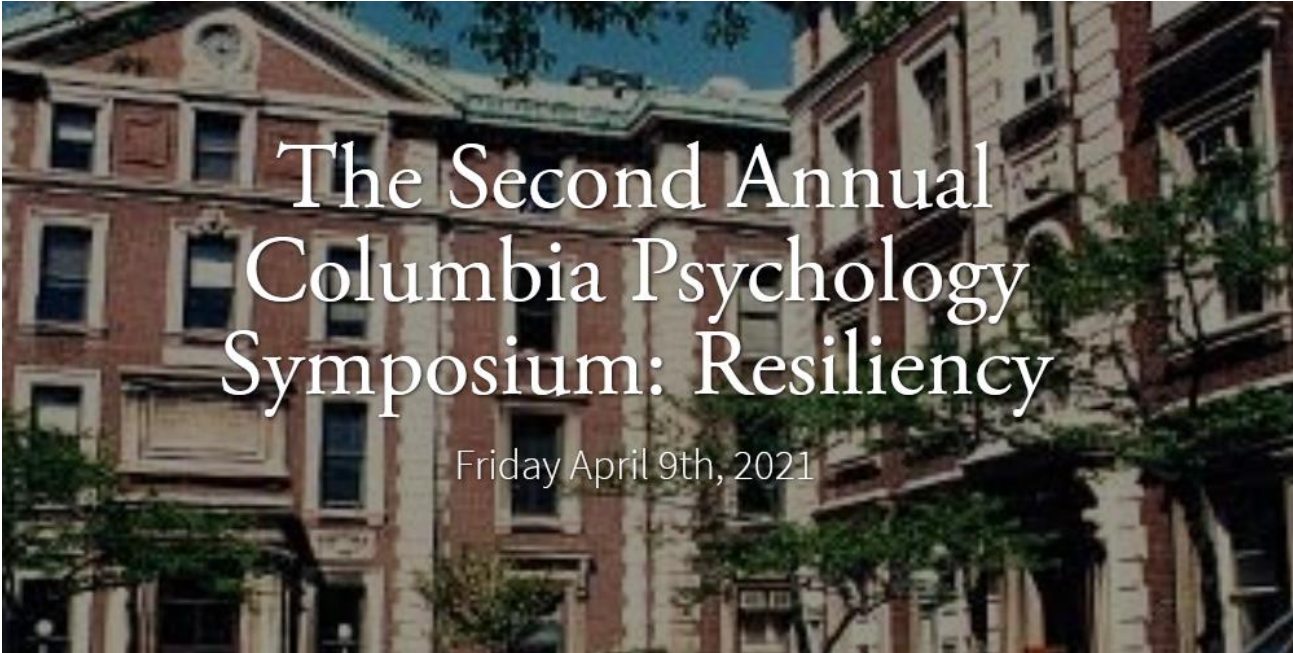


The Second Annual Columbia Psychology Symposium
Program of Presenters



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JACQUELINE TAYLOR

Independent Study

Jacqueline Taylor is studying public health. She is passionate about reproductive justice and the intersection of race and medicine.



Valproic acid in conjunction with play intervention reopens critical period in children with autism spectrum disorder

Jacqueline Taylor

This is a study proposal to observe and document changes in social behavior and emotional regulation in children with autism spectrum disorder when administered valproic acid in conjunction with intense and targeted play interventions. This randomized, placebo-controlled, longitudinal study observes a group of 48 participants with Autism spectrum disorder from 8-10 years old. The participants are divided in four groups. The first group is given Valproic acid in conjunction with intensive play intervention, the second group is given a placebo and receive intensive play intervention, the third group is given Valproic acid with no play intervention, and the fourth is given a placebo along with no play intervention. The expected findings of this study will show a significant increase of social play behavior and emotional regulation when Valproic acid is administered in conjunction with targeted and intense play intervention. Importantly, these results show a critical period of neural plasticity can be reopened by Valproic acid and trained by play therapy to offer brain benefits of play to those with Autism spectrum disorder.

ZOE GUPTA

Couples Lab

Zoe Gupta is a sophomore in Columbia College studying psychology. She is interested in the intersection between clinical therapy, community organizing, and education.



ALANA SILBER

Couples Lab

Alana Silber is a senior at Barnard College, also studying psychology, with a particular interest in couples therapy. She'll be starting as a research assistant and editor at the American Institute for Cognitive Therapy this April.



Are lonely people responsive to stressors within their social networks?

Zoe Gupta, Alana Silber, & Megan Goldring

More than half of Americans today are considered lonely, and over 4/5 of Americans report high stress levels. Despite the widespread nature of these conditions, there is a current deficit in the literature regarding how loneliness and stress interact. This study will investigate the relationship between loneliness and responsiveness to network stressors, or stressors which happen to someone's close friends and family. For example, if a lonely person's parent experiences discrimination at work, does that individual feel as stressed as if it had happened to them directly? First, we hypothesize that the lonelier someone is, the lower their responsiveness to network stressors is. In order to examine this hypothesis, we will observe the correlation between participants' scores on the UCLA Loneliness Index and their described stress response to vignettes on a likert scale. We further hypothesize that lonely people have less empathy than others, and that this lack of empathy could relate to their reduced responsiveness to network stressors. We plan to investigate this secondary hypothesis by seeing if there is a positive correlation between loneliness and empathy. If our hypotheses are correct, the preliminary evidence will suggest that lonely people are less able to empathize with and respond to stressors within their social networks.

NATHAN MARTIN

Developmental Affective Neuroscience Lab

Nathan is an undergraduate senior majoring in Psychology. As a research assistant in the Developmental Affective Neuroscience Lab, he's interested in researching the relationships between early life adversity and psychopathology.



Relationship between depression and anxiety symptoms and affective sensitivity to emotional schema acquisition is unclear in young adults

Nathan Martin, Anna Vannucci, Sapna Patel, Ariel Katz, Medina Shah, & Nim Tottenham

Schema theory proposes that emotional schemas cause and maintain biased, maladaptive beliefs of oneself and the world, which leads to psychopathology, such as anxiety and depression. Prior research in fear conditioning and reward learning have also linked anxiety and depression symptoms to altered emotional processes. However the relationships between internalizing symptoms and emotional schema learning processes have yet to be evaluated. This study examined whether depressive or anxiety symptoms were associated with differences in learning emotional schemas among young adults. Participants (N=110, age=18-35 years, 51F/55M/4Other) were recruited online through Prolific. They completed a novel, computerized emotional schema acquisition task in which they were presented with fribbles: made-up animal-like figures that made positive, neutral, or negative sounds based on body type. Participants predicted what sounds fribbles would make until participants reached 90% accuracy. Affect ratings of new fribbles were made before and after the task to assess participants' acquisition of the affective component of the emotional schema. For the typical person, on average, negative and positive schemas were learned more robustly than neutral schemas, as indicated by higher within-person accuracy and greater change in affect ratings. The relationship between internalizing symptoms and emotional schema acquisition is unclear, being that no moderating effects of anxiety or depression were found. Understanding the relationship between internalizing symptoms and other aspects of emotional schema-based learning (e.g. adaptation, generalization) is vital to creating a paradigm that can be used with young children, when many emotional schemas are being developed.

MEDINA SHAH

Developmental Affective Neuroscience Lab

Medina Shah is a senior at Barnard College studying psychology, race and ethnic studies, and women's, gender, and sexuality studies. Her background lies in developmental and cross-cultural research, and she hopes to take this experience into her career in holistic/spiritual clinical psychology.



Considering cultural factors in the association between caregiving-related early adversity and psychopathology

Medina Shah, Anna Vannucci, Camila Vicioso, Nneka Ulu, Nim Tottenham

Early life adversity is a robust risk factor for psychopathology, with meaning-making processes and developmental context mismatch proposed as crucial mechanisms (Tottenham, 2020; Frankenhuis, 2012). Existing research suggests that self-construals affect emotional processes central to meaning-making and psychopathology; interdependence creates tendencies towards secondary control, group-oriented memory, and prioritization of social harmony, while independence tends towards ego-focused emotional expression and primary control (Markus & Kitayama, 1991; Cross et al., 2011). In this study, we examine whether culturally-constructed self-construals moderate the association between early life adversity and psychopathology, particularly for caregiving-related early adversities. We also seek to understand the relevance of Western-defined adversity measures to individuals from collectivistic cultures, with previous research indicating that many of these "adverse" experiences are culturally normative or even encouraged in non-Western cultures (Shanalingigwa, 2009). Undergraduates (N = 241) (age = 18-39; 164F, 77M/NB; 93 White, 77 Asian, 49 Other) completed an online survey measuring adverse childhood experiences, psychopathology, self-construals, and normativity of Western-defined adversities in their ethnic cultures. Interdependent self-construal was associated with an attenuated, buffering association between family psychological abuse and symptoms of anxiety and somatic complaints. No other moderating effects of self-construal were found. Results also showed that measures of caregiver psychological maltreatment were perceived as being more culturally normative in collectivistic cultures than in Western individualistic cultures. These findings highlight the importance of accounting for cultural factors in research and prevention of psychopathology following childhood emotional maltreatment and challenge the deficit lens used in psychology research on people of color and non-Western cultures.

ARIEL KATZ

Developmental Affective Neuroscience Lab

Ariel is a current junior at the Columbia School of General Studies, majoring in Psychology. She is interested in studying how early life experiences impact the psychopathology and social-emotional development of adolescents.



How past experiences with caregivers affects your present learning and memory: Development of an attachment false memory task for children

Ariel Katz, Anna Vannucci, & Nim Tottenham

Children exposed to caregiving-related early adversities (crEAs) often develop insecure attachment and internal working models about themselves, others, and the world around them, whereas children exposed to sensitive, consistent caregiving have secure attachment and internal working models (Bowlby, 1979). Internal working models can be understood as interpersonal affective schemata or “scripts” because they facilitate affective meaning making, expectations, and predictions about daily events, especially those involving caregivers and children (Tottenham, 2020). According to fuzzy trace theory (Brainerd & Reyna, 2002), gist-level inferential memory errors (false memories) are enhanced when children recall emotional events processed in a gist-like manner because they rely on internal affective schemata to fill in event gaps (Solomon et al., 2019; Bauregard et al., 2016). This study will examine false memories for attachment scenarios in relation to crEA exposure among 324 children (ages 8-14). In this novel attachment false memory task, children will view 24 daily interpersonal events as a set of six images that are missing causes of ambiguous emotional outcomes for the child, then complete a surprise recall task where half of the images are lures. Four lure types are presented for each scenario: a secure causal attachment lure, insecure causal attachment lure, peripheral gap-filling lure, and scenario-inconsistent lure. Piloting indicates that secure- (vs. insecure) attachment scenarios were rated by adults as being more positive overall and having parents that were more kind, warm, and responsive to their child. This study will fill a critical gap in understanding children’s interpersonal affective schemas and emotional memory development.

TALYA BEDFORD

Oishi Lab

Talya is a post-baccalaureate student in the psychology certificate program. She is interested in clinical psychology.



The Role of Psychotherapy for At-risk Youth

Talya Bedford

In this study, I plan to examine the efficacy of psychotherapy for at-risk young adults. What role does psychotherapy play in the lives of those who may also be struggling with issues such as food insecurity, lack of shelter, or other issues that pose a survival risk? I predict that even when competing survival issues are presented, psychotherapy still plays a critical role in the overall “well-being” of the client, and in their ability to function well in work, access shelter or food resources through problem-solving, and live more satisfying lives. I plan to recruit at-risk adolescents who do take advantage of a free psychotherapy service, as well as at-risk adolescents who do not take advantage of a free psychotherapy service. I hope to look at measures of overall well-being in both groups and consider how psychotherapy changes the lives of participants as recorded through reported levels of satisfaction in life, levels of ability to address problems that are presented, and levels of functioning at-large. This study could inform how resources are allocated and which resources are prioritized over others for at-risk members of the population.

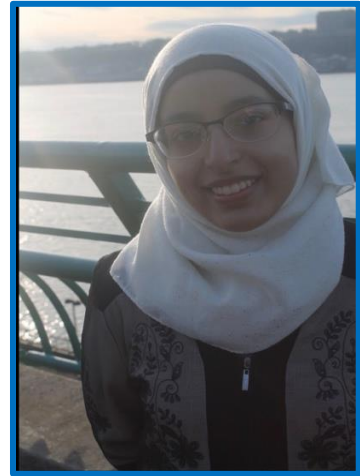
SAMEAH ALGHARAZI

Developmental Affective Neuroscience Lab

Sameah Algharazi is a sophomore at the City College of New York. She is interested in learning more about the effect of music on memory recall.

Developmentally specific effects of familiar music on remote memory retrieval

Sameah Algharazi, Paul A. Bloom, Ella Bartlett, Nicholas Kathios, Nim Tottenham, Mariam Aly



A large body of research suggests that social support is key to psychological well-being (e.g., Berkman, Stimuli that are encoded during periods of rapid brain development tend to have enduring effect on behavior later in life. For example, exposure to stimuli (e.g. music) during childhood is associated with behavioral preference for those stimuli and better emotion regulation in adulthood (specifically under conditions of stress) in both rodent models and humans (Gabard-Durnam et al., 2018; Yang et al., 2012). Whether these effects of childhood-exposed stimuli extend to other domains of behavior – for example memory retrieval – remains unknown. The effects of familiar musical stimuli on memory recall have been studied extensively in participants that have Alzheimer's and other types of dementia (Foster & Valentine, 2001; Irish et al., 2006), but whether such effects are affected by the specific developmental periods of encoding is unexplained. The present study will determine how familiar music released during childhood, adolescence, and early adulthood influences the retrieval of remote autobiographical memories later in life from developmental periods corresponding with the music. In a pilot study, we exposed healthy adults ages 65-80 years (N=6) to 30 second familiar music clips, unfamiliar clips and silence across three study sessions. Each participant was prompted to elaborate on 15 events from the 3 time periods in each session. We hypothesize that familiar music will more strongly enhance episodic recall for memories occurring in childhood, consistent with work finding a 'sensitive period' for musical stimuli during middle childhood. We hope our results will contribute to the understanding of developmental trends in encoding and sensitivity to environmental musical stimuli.

JACQUELINE ERLER

Couples Lab

Jacqueline Erler is junior in Columbia College studying Neuroscience and Behavior, on the pre-medical track. She is interested in social psychology research and how it relates to improving health outcomes.



SOPHIA TONY-EGBUNIWE

Couples Lab

Sophia Tony-Egbuniwe is a Columbia College graduating senior studying Psychology on a Pre-Medical track. She is interested in health (mental and physical) inequities.



Discrimination-Based Stress Reactivity in White and non-White College Students

Jacqueline Erler, Sophia Tony-Egbuniwe, Megan Goldring

In this study, we investigate how White and non-White participants perceive stressful situations targeted at racial identity. We ran an online vignette study with 186 undergraduate students who indicated how 'stressed' and 'overwhelmed' they would be in 5 discrimination-based scenarios with varying objective severity. Participants also responded to non-discrimination scenarios that matched these levels of objective severity. We ran a 2 (participant identity; non-White versus White) x 2 (stressor category; discrimination versus non-discrimination) ANOVA. Based on existing theory, we expect to find that non-White participants will report discrimination scenarios as less stressful than non-discrimination scenarios, regardless of how objectively severe they are. Furthermore, we expect that White participants will report discrimination scenarios as less stressful than non-discrimination scenarios, again regardless of the objective severity of those stressors. Finally, we expect that White participants will underestimate the severity of discrimination stressors, as their responses will be lower than those of non-White participants. Together, these findings will support prior work on minimization and common identity theory.

DEBORAH CESARINI

Higgins Lab

Deborah is a senior at GS majoring in Neuroscience & Behavior, and an honors student at the Higgins Lab where she investigates how motivation influences morality. Through her research, she aims to understand how people make moral judgments and decisions and, hopefully, how that knowledge can be applied to improve society.



Investigating The Relationship Between Moral Judgment Intensity and Motivational Relevance

Deborah Cesarini, Emily Nakkawita, E. Tory Higgins

What makes people condemn certain behaviors more than others? We hypothesize that motivational relevance contributes to these differences in moral judgment. To operationalize motivational relevance, we utilize a recently validated framework of goal pursuit activities that distinguishes four motive domains (promotion-truth, prevention-truth, promotion-control, and prevention-control). In two studies, participants judged the immorality of scenarios involving broken promises in each domain. In both studies, we found that motivational relevance is negatively associated with moral judgment intensity, such that when a promise to engage in a high-relevance activity is broken, moral judgments are attenuated and, conversely, when a promise to engage in a low-relevance activity is broken, moral judgments are intensified. This research makes an important contribution to the motivation and moral psychology literatures as it helps to establish the motivational determinants of moral judgments.

SAPNA PATEL

Developmental Affective Neuroscience Lab

Sapna is a junior in Columbia College studying Biology, but has always been extremely interested in developmental psych research. She hopes to continue to either medical or veterinary school once she graduates!



Relationship between Childhood Unpredictability and Emotional Schema Adaptation in Young Adults

Sapna Patel, Anna Vannucci, Nathan Martin, Medina Shah, Ariel Katz, Nim Tottenham

Developmental evolutionary frameworks propose that early adverse life experiences give rise to behavioral adaptations that allow children to survive in these contexts. Initial evidence suggests that unpredictable childhood environments are linked to improved cognitive flexibility in unpredictable contexts. This study examined the association between childhood caregiving unpredictability and emotional schema adaptation. In this two-day, online study, 47 young adults (18-35yo, 21F/23M/30th) completed the Questionnaire of Unpredictability in Childhood and an emotional schema acquisition task on day 1 (D1). Participants learned that different fribbles were positive, negative, and neutral as a function of their body color/shape based on emotional sounds they made. The next day (D2), participants completed an emotional schema-based learning task that assessed their ability to adapt their preexisting emotional schema. Most fribbles were consistent (congruent) with the D1 emotional schema. The remaining fribbles were inconsistent (incongruent) with the D1 schema because their emotional valence changed as a function of their faces/tails. Higher levels of childhood unpredictability were associated with higher accuracy averaging across all schema-incongruent conditions. When considering within-person differences between schema-incongruent conditions, the positive association between childhood unpredictability and accuracy was more robust when learning to shift from a negative-to-neutral schema compared to learning a positive-to-neutral schema change. These results suggest that childhood unpredictability is associated with an increased ability to adapt existing emotional schemas and accommodate new, schema-incongruent information, particularly when negative schemas change to neutral. These results support adaptation-based frameworks of childhood unpredictability and additional work earlier in development is needed.

EZGI OZTELCAN

Aly and Baldassano Labs

Ezgi is a third-year UC Berkeley psychology student from Istanbul, Turkey, aiming to further develop my scientific approach skills and practice in different specializations in psychology to support shaping future academic and career goals. She is interested in how evolutionary developmental processes affect the human brain on a neurological basis, with an emphasis on language development, memory, and learning!



ZION WALKER

Aly and Baldassano Labs

Zion is a second-year undergraduate student at Columbia studying neuroscience and behavior. She is interested in the formation and retrieval of episodic memories as well as the impact of neurological impairments like dementia on memory.



What is the impact of statistical structure on response time latencies?

Ezgi Oztelcan and Zion Walker (co-first authorship), Halle R. Dimsdale Zucker.

Many of our experiences, such as our morning routines, have a consistent, repeated order. These ordered, or statistical, regularities can help us predict upcoming events, plan our actions, and guide our memories for these events. For instance, it may be easy for you to predict what task needs to be done next when you are following your structured daily routine, but you notice you forget things when your routine lacks its integrity. In this study, we will investigate whether statistical structure, imposed at encoding, facilitates prediction of upcoming responses. In the experiment, participants will view short videos of Japanese mascots. On each trial, participants will see an episodically unique instance of each mascot (e.g., A1, A2, etc.) with repetitions of the mascot character presented either in a repeating (A1-B1-C1 / A2-B2-C2) or random (E1-F1-H1 / F2-H2-E2) order. On each trial, participants will judge the dominant color of the mascot and response times for this judgment will be recorded. We predict that studying information that has an underlying repeated statistical structure will facilitate responses to this judgment (i.e., faster response times in the ordered vs. random condition). We hypothesize that this response time benefit could arise because participants can use the underlying statistical structure to facilitate prediction of what mascot comes next and prepare their response. This work will add to our understanding of how statistical regularities in our environment help facilitate prediction and learning.

JAMIE ZHANG

Couples Lab

Jamie Zhang is a sophomore at Columbia Engineering. She is a pre-medical student majoring in computer science and minoring in sociology.

YADHIRYS BEATO

Couples Lab

Yadhirs Beato is a freshman at Columbia College. She is a prospective psychology major interested in social and clinical psychology.



Attachment Style as a Moderator of the Effects of Co-rumination on Anxiety and Relationship Quality in Romantic Relationships

Jamie Zhang, Yadhirs Beato, Ana DiGiovanni

Co-rumination is characterized by the excessive discussion of problems in relationships where both people partake in cyclical negative-focused talk. Previous research highlights that trade-offs between higher friendship quality yet increased anxiety are associated with more co-rumination (Rose, 2002). However, recent work shows that co-rumination is a heterogeneous process, as there are differing degrees to which individuals experience costs and benefits (DiGiovanni et al., under review). One possible individual-level moderator that may explain why co-rumination has especially strong effects for certain people is attachment style. To date, there are few studies examining the association between attachment, co-rumination, and intra- and interpersonal outcomes in dyadic and romantic contexts (Homa et al., 2014). Past work shows that anxiously attached individuals tend to engage in coping strategies that heighten emotions (Cassidy, 1994), such as co-rumination, yet diminish relationship quality (Collins & Read, 1990). Using a dataset of over 100 cohabitating romantic couples in the New York metropolitan area, we will run two Actor Partner Interdependence Models to examine how anxious attachment moderates the association between co-rumination and anxiety (Model 1) and co-rumination and relationship quality (Model 2). We hypothesize that the positive association between co-rumination and both individuals' and partners' anxiety will be amplified for those high in anxious attachment. We hypothesize that there will be a positive relation between co-rumination and individual and partner reports of relationship quality. We will investigate whether anxious attachment strengthens or weakens these effects. These findings have important implications for understanding how attachment style influences co-rumination in romantic relationships.

NICOLE GAVRILOVA

Developmental Affective Neuroscience Lab

Nicole is a senior at Hunter College and a research assistant at Columbia's Developmental Affective Neuroscience Lab. She is interested in learning more about the neurodevelopment of executive functioning and emotion regulation, and whether this understanding of the brain may have potential to inform identification of mental health risk and treatment (specifically with psychotherapy).



Exploring Replicability and Clinical Utility of Gastrointestinal-Anxiety Associations in Youth with Caregiving Disruptions

Nicole Gavrilova, Paul A. Bloom, Nicolas L. Camacho, Tricia Choy, Charlotte Heleniak, Syntia Hadis, Lisa Gibson, Andrea Fields, Anna Vannucci, Chelsea Harmon, & Nim Tottenham

Gastrointestinal (GI) symptoms are associated with anxiety in youth (Shelby et al., 2013), which has motivated suggestions for including GI symptoms as part of anxiety screening. However, it is unknown whether GI-anxiety associations and their clinical utility are different in youth with versus without caregiving disruptions. This study explored GI-anxiety associations in youth with a history of caregiving disruptions, and evaluated predictive model performance on study participants' KSADS anxiety diagnoses. Our study cohort included data from a longitudinal study of participants (N=190, ages 6-12 years) exposed to a range of disruptions in caregiving (early institutional care, disrupted caregiving, and adoption/foster care) and a comparison group of (N=105 children) who never experienced such disruptions. We also assessed a subset of participants (N=89) at a follow-up visit approximately 18 months later. GI symptoms were assessed by 4 items from the Child Behavior Checklist (CBCL). Anxiety was assessed by the Revised Children's Anxiety and Depression Scale – Parent Version (RCADS-P) and Kiddie Schedule for Affective Disorders and Schizophrenia (KSADS). We found a positive association between GI symptoms and anxiety in youth with a history of caregiving disruption, replicating previously established GI-anxiety associations in youth without such disruptions. Differences in the magnitude of GI-anxiety associations were not found among various caregiving experiences in this cohort. No evidence was found in support of the predictive validity of GI symptoms in this cohort, as prediction of KSADS anxiety diagnosis using GI-based models was not better than chance.

ANSHITA SINGH

Developmental Affective Neuroscience Lab

Anshita is an undergraduate student at Delhi University, India. A Psychology major, she is working with Paul Alexander Bloom on the music and memory study.

Architectural Arcs in Episodic Details in Recalled Memory Narration

Anshita Singh, Paul Bloom, Nicholas Kathios, Sameah Algharazi, Ella Bartlett, Mariam Aly*, & Nim Tottenham*

*denotes shared senior authorship



Researchers across disciplines have asked whether there is a common architectural framework in narratives. There is ample evidence suggesting arcs of emotional details in narrations (Reagan, 2016; Boyd, 2020), which raises further questions about narrative structures in general. Paradigms of narratology suggest that narrative structure is indistinguishably associated with human memory (Herman, 2013). Yet, because most narrative research has focused on literature, relatively less work has examined narrative architectures within the context of memory retrieval (Leon, 2016).

Studies in narrative development suggest that encoding may begin with episodic details (Wigglesworth, 1997). In the present study, we explore how episodic and semantic details are temporally structured during recall. We hypothesized that there would be a peak in episodic retrieval at the beginning of autobiographical memory recall.

Across three study sessions, we prompted healthy adults aged 65-80 (N = 6) to recall 15 events each (total of 45) from childhood, adolescence, and early adulthood. We used the Autobiographical Interview Scoring Manual (AI; Levine et al., 2002) to score episodic and semantic details retrieved in each sentence of the memory narratives. Preliminary analyses suggest that there is a spike in episodic details at the beginning of recalled memory narration. We hope our results will contribute to the understanding of the structural framework of memory narration within the context of memory retrieval.

ANNA FRANCO

Higgins Lab

With a keen interest in decision making and human behavior, Anna is part of the Psychology Honors Program and The Mendelson Center for Undergraduate Businesses at the Columbia Business School. Within the Higgins lab, her research investigates goal pursuit processes with a promotion and prevention focus.



Multidimensional Regulatory Fit and Activity Decision-Making

Anna Franco, Emily Nakkawita and E.Tory Higgins

In this poster, we present the proposed design of two new studies intended to extend past research indicating that people are more likely to choose to engage in activities that are (vs. are not) a regulatory fit (i.e., that sustain their motivational orientation; see, for example, Higgins et al., 2010). Using a new, integrative 2 (promotion vs. prevention) x 2 (control vs. truth) framework of goal pursuit activities (Nakkawita & Higgins, 2021), we will test the hypothesis that people will tend to decide to engage in activities that reflect their motivational orientation on both dimensions versus apps that do not. To do so, we will use an ecologically-valid app store paradigm in which participants are presented with pairs of smartphone apps from the same domain (e.g., two discount-related shopping apps), but which vary based on the motivational framing of the activity involved in using the app (e.g., promotion-truth: "Discover the Best Prices" vs. prevention-truth: "Verify Item Prices"). Thus, apps' motivational framing will be manipulated on a within-subjects basis, as participants will encounter apps reflecting all four motivational concerns. In a first correlational study, we plan to test for associations between participants' measured motivational orientations and their app download decisions. Then, we plan to conduct an experimental study in which we manipulate participants' motivational orientations and measure their app download decisions. This research will provide needed insight into whether the intersections of distinct motivational systems influence activity engagement decisions beyond the influence of any given motivational system on its own.

NICHOLAS KATHIOS

Developmental Affective Neuroscience Lab

Nicholas is an undergraduate senior at Columbia College studying Music and Psychology. He is interested in the intersection of these fields, particularly in how music influences affect and cognitive functions.



Popular Music and Self-Reported Emotion Valence.

Nicholas Kathios, Paul A. Bloom, Ella Bartlett, Sameah Algharazi, Nim Tottenham*, Mariam Aly* (*these authors share senior authorship).

Music's ability to evoke emotions in its listeners is a well-studied phenomenon (Juslin & Västfjäll, 2008). Particularly, music in a major mode is more likely to elicit a positively-valenced emotion, and the opposite is true for music in a minor mode (Gomez & Danuser, 2007). However, much of the work done to understand this relationship has used only Western Classical music. Thus, it is unclear whether mode and other parameters traditionally studied (i.e. tempo) have predictive power in music-evoked emotions of other genres. Considering popular music genres (R&B/Hip-Hop, Rock, Pop, and Country) accounted for 68.5% of all streams in the US in 2020 (Ingham, 2021), this pilot study (N=6) looked to see whether "Classical" parameters (mode and tempo) have a relationship with participants' self-reported emotion to American popular music, or if other parameters more relevant to this music play a bigger role. To explore alternate parameters, we used five generated by Spotify (acousticness, danceability, valence, speechiness, and energy). We hypothesized that the "Classical" parameters would not have a relationship with self-reported evoked emotion (responses on a scale from 1-7, with 1 = "extremely negative" and 7 = "extremely positive," to the question "how did the clip you just heard make you feel?") after listening to a 30 second clip of popular music, whereas "Spotify" parameters would. Bayesian Multilevel Linear Regression Models provided evidence that only mode influenced emotional responses to popular music, and cross-validation indicated that models based on Classical parameters more accurately predicted emotional responses, particularly within familiar music.

MINHEE KIM

Independent Study

Minhee received her BS in Quantitative Science from Emory University, and she is currently a post-bac student studying Psychology at Columbia. She is interested in applying virtual reality (VR) technology to motivation and self-efficacy, and aims to pursue a PhD in this field.



How does Observing Self-effort affect Persistence?

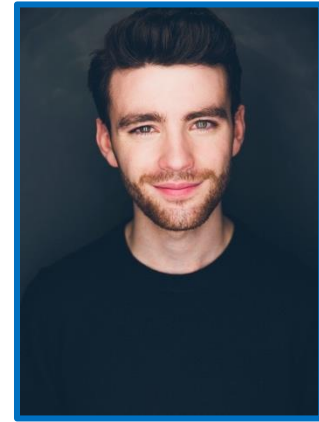
Minhee Kim, Dr. Lisa Son

Research has shown that self-observation provides numerous benefits, from improving social behavior to increasing problem solving skills. However, we do not observe ourselves as much as we observe others. The current research will examine the effects of self-observation on persistence. After working on a sudoku task, participants will be randomly assigned into two groups: self-observation (SO) and no-self-observation (NSO) control group. Upon completion of the sudoku task, participants in the SO group will watch a video of themselves solving the sudoku puzzle, whereas those in the NSO group will merely recall their sudoku task experience while verbalizing their recollections. All participants will then solve a series of anagram problems for as long as they choose. It is hypothesized that those in the SO group will persist for longer than those in the NSO group. Such findings would suggest that self-observation strengthens persistence, and can do so across domains. Further research may help identify the mechanism by which self-observation enhances persistence.

CONOR SHATTO

Independent Study

Conor is a second semester Post-Baccalaureate student in the Psychology Certificate Program at SPS. He is particularly interested in pursuing research in the cognitive and behavioral complications that arise due to or during incarceration.



The Potential Effects of the Covid-19 Pandemic on Incarcerated Individuals: A Literature Review

Conor Shatto

Despite an urgent rush to understand the ramifications of Covid-19, one group has been underrepresented in current studies: the incarcerated community. Research has expounded upon cognitive and behavioral difficulties that stem from incarceration. Meanwhile early evidence points to an uneven response to the pandemic in facilities: poor ventilation, incapability to maintain distancing, under enforced/resourced health protocols and equipment, along with many individuals not disclosing symptoms for fear of medical isolation (notably akin to isolated confinement). Can lockdowns/distancing in facilities, the stressors that are met within mortality, high infection, isolation, and the reduction of fundamental systems the community relies on, take a toll on cognition and an individual's behavioral functioning? Can prior literature indicate or predict what outcomes may occur?

We investigate and postulate the potential outcomes that our incarcerated communities may face. We summarize research on the cognitive and behavioral effects of incarceration, along with evidence indicating detriments related to isolated confinement/solitary. We synthesize this with early evidence indicating the cognitive and behavioral effects of contracting Covid-19, along with studies detailing the effects of isolation faced during this time. We examine how the exacerbation of isolation and rescinding of community/social resources may be causing harm. We also examine evidence of cognitive and behavioral outcomes from prior studies within viral outbreaks in facilities in order to make predictions of what kind of effects may be occurring. Further research is desperately needed to continue to highlight the behavioral and cognitive ramifications of this public health crisis.

MARGOT DEREGNAUCOURT

Couples Lab

Originally from France, Margot moved to New York to pursue her undergraduate degree at Barnard College. After making the decision to major in psychology and pursue a career in this field, she began working in the Columbia Couples Lab where she is a research assistant.



The Dual Effect of Social Anxiety on Affective Empathy

Margot Deregnaucourt and Megan Goldring

It is thought that getting back into a social routine after quarantining may bring about anxiety, and affect the way people interact. For the past year, isolation has led to a consequential decrease in in-person interactions and Covid-19 has fundamentally altered the way people connect with others. One clear consequence of this phenomenon is a rise in social anxiety caused by the apprehension of having to socialize again once restrictions are lifted. So far, what does literature say about the effect of such anxiety and of having spent so much time alone on one's ability to connect meaningfully and empathize with others? Narrowing the review to how the pandemic could impact empathy, this poster will focus on the literature suggesting that social anxiety can amplify an empathy gap. This literature review was conducted via Google Scholar, PsycInfo and PubMed, using "social anxiety" and "empathy gap" as the main key words. Of the 20 articles reviewed a majority came to the same conclusion, and revealed that social anxiety is associated with an ability to empathize with negative social emotions, but not with others' positive emotions. So, those who are socially anxious do in fact demonstrate an empathy gap, but only when faced with positive sentiments.

JULES KORTENHORST

Independent Study

Jules is a psychology post-bacc student preparing for a PhD in clinical psychology. His current research interests include computational psychiatry, trauma, experiential treatment modalities, and psychopharmacology.



The Association of Suicide Motivations and Attempt Severity

Jules Kortenhorst, BA; Lawrence Amsel, MD MPH

The existing literature regarding the motivations of suicide attempters assumes that attempters have made a choice to die, and therefore focuses on factors that could push an individual from wanting to live to wanting to die. In contrast, Amsel (2002) proposed that, rather than viewing suicidal behavior as a choice between two outcomes (live or die), we should view it as a choice between two actions, attempt or do not attempt. Attempting is like taking a gamble with two possible outcomes, survive or die, but unlike in most gambles, the gambler/attempter sets the probability that determines which outcome occurs by choosing the severity of the attempt. This model therefore implies the existence of six clinical archetypes, defined by their preference rankings of the three outcomes, each of which would exhibit a distinct constellation of suicide motivations and severity of attempt.

The aim of the present study is to assess the validity of a simplified version of this model by examining the relationship between suicide motivations and severity. [100] sequential suicide attempters presenting to the ER at a large urban hospital will be administered measures of suicide motivations (IMSA) and severity (C-SSRS). Our hypothesis is that greater interpersonal suicide motivations will correlate negatively with severity, and greater intrapersonal motivations will correlate positively with severity. This study will contribute to the understanding of suicide by (a) correlating motivations with attempt severity for the first time, and (b) operationalizing and empirically testing a novel theory of suicidal behavior.

JOHN KERWIN

Developmental Affective Neuroscience Lab

John is a post-bac student in Psychology and a research assistant in the DAN Lab. His primary research interests relate to the neuroscience of gender, particularly the neuropsychological outcomes of hormone therapy, and he hopes to pursue a PhD in this area.



Assessing the Relation Between Pubertal Stage and Inhibitory Control in an Adolescent Sample

John Kerwin & Andrea Fields

Researchers have extensively documented the organizational effects of hormones in utero, linking prenatal androgen exposure to later behavior in both animals and humans. However, comparably less is known about how puberty and its associated hormonal changes affect brain development and cognition during adolescence. Importantly, adolescence is a critical period for the development of the prefrontal cortex (PFC), a brain region that demonstrates protracted development across childhood and adolescence and is essential to cognitive processes and goal directed behavior. Therefore, pubertal hormones present during adolescence may have a particularly profound effect on the developing PFC, and relevant behaviors, like executive functioning.

One core component of executive functioning is inhibitory control, defined as the ability to suppress interfering thought processes or actions. Adult levels of inhibitory control stabilize in mid-to-late adolescence, suggesting that pubertal development may play an important role in the patterning of this behavior. However, limited work in humans has sought to investigate the link between pubertal development and inhibitory control, though rodent models provide support for this association. Therefore, the current analysis will assess the association between pubertal development and inhibitory control during adolescence using publicly available data from the Adolescent Brain Cognitive Development Study (ABCD). This analysis will address an important gap in the literature by offering insight into a possible biological mechanism underlying the development of inhibitory control during adolescence.

EMILY MINTZ

*Feinstein Institutes for Medical Research, Zucker Hillside Hospital
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Emily is from Long Island, NY. She is a Psychology major and a Spanish and Latin American studies minor at Barnard College. She also works with Dr. Anna Van Meter at the IMPACT (Investigating Mood Pathology: Assessment, Course, Treatment) Lab, in which the team studies mood disorders, specifically bipolar disorder, in adolescents and how technology can be used for early symptom detection and treatment.



Protective or destructive? How does social media use affect adolescent mental health in the era of pandemic-related social distancing?

Anna Van Meter, Ellen Anderson, Emily Mintz, Michael G. Wheaton

Background

Although critical for minimizing infection, COVID-19-related social distancing guidelines carry consequences. Socializing is important to mental health, particularly during adolescence. COVID-19-related school closures and activity cancellations changed adolescents' lives drastically. Social media became the primary way to connect. The goal of this study was to examine if/how online activity influenced adolescent mental health during the pandemic.

Method

Adolescents were recruited through social media in late March/early April 2020. Consenting participants completed the PHQ-9, GAD-7, Online Belongingness Scale, and reported on screentime and social media time (SMT) every two months. Multilevel models, controlling for age and gender, assessed change in anxiety and depression.

Results

Participants' (N=332; 88% female; average age 16.5) PHQ-9 (M=11.4[7.2]) were lower in August, relative to other months. GAD-7 (M=9.2[6.0]) declined across follow-ups. SMT (225 minutes[100 SD]) and screentime (416[137 SD]) decreased from baseline-to-August and increased from October-to-December. SMT was associated with higher PHQ-9 (B=0.01, p=.036) and GAD-7 (B=0.01, p=.004) scores. Online belongingness was associated with lower PHQ-9 (B=-0.50, p<.0001) and GAD-7 (B=-0.31, p<.0001) scores. Screentime was not associated with PHQ-9 or GAD-7. The interaction of online belongingness and SMT was significant; participants who had high online belongingness and high SMT had lower PHQ-9 and GAD-7 scores.

Conclusion

Adolescents' mental health was affected by COVID-19; depression and anxiety were at a high under strict quarantine in spring. The effects of online activity can be deleterious, but when it promotes belongingness, social media may improve mental health. It is important to consider the nature of adolescents' online experiences, not just time spent.

KATHERINE BIBILOURI

Policy Research Group, University of Cambridge and Health Policy & Management, Mailman School of Public Health, Columbia University supervised under Kai Ruggeri

Katherine is a third year Dual B.A student between Columbia University (where she majors in psychology) and Sciences Po (where she majored in Politics and Government with a regional focus in Middle Eastern Studies). Her primary interest in combining both disciplines was to gain a richer understanding of how behavioral science research can be utilized to inform policy-making.



NAZEER ABDUL-SALAAM

Policy Research Group, University of Cambridge and Health Policy & Management, Mailman School of Public Health, Columbia University supervised under Kai Ruggeri

Nazeer Abdul-Salaam: Nazeer is a junior at GS who will take part in the Global Behavioral Science summer practicum to prepare him for his projected future research in education policy. In his spare time, he volunteers with organizations that increase access to higher education.



Testing the Global Replicability of Temporal Discounting in times of Rising Inequality.

Katherine Bibilouri, Nazeer Abdul-Salaam

Economic inequality has been associated with drastic rates of preferring smaller instant financial gains over larger delayed gains. Whether such patterns are reflective of decision-making ability or the absence of adequate resources to meet immediate needs is unclear and may feed into growing global economic inequality. This study proposal presents a large-scale collaboration in which we will test for the presence of temporal choice anomalies in over 90 countries to understand consistency and robustness of temporal discounting globally. The aim of this study is to focus on assessing if temporal choice anomalies appear to be present around the world and if features of discounting vary significantly within and between populations (as opposed to simply the rates at which individuals and groups discount). This study leverages methodological approaches used in a recent global studies replicating related psychological theories to adapt values to local currencies, relative incomes, and test all participants in their native languages. The aim of this study is to determine if temporal discounting as a construct is present irrespective of superseding financial or social circumstances. We predict the construct will generalize globally, but with less extremes as shown for discount rates alone which will have significant implications for policies aimed at reducing economic inequality.

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