2021 Division 10 Micro-grant Program Awardees

*The awardees' studies will be presented at the 2022 American Psychological Association.

Rebecca Chamberlain, Goldsmiths, University of London
Mindfulness in the Gallery

Katherine Cotter, Positive Psychology Center, University of Pennsylvania
Virtual Art Visits: Examining the Well-Being Impacts of Immersion

Robbie Ho, The Hong Kong Polytechnic University
Aesthetic experience of street art: Cross-cultural studies in Poland and Hong Kong

Shoshi Kesiari, University of Padova
Crafting Life Stories in Photocollage: An Online Creative Art-based Intervention for Older
Adults

Vida Manalang, Drexel University
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Chelsea Miller, University of Northern Colorado
First Year Students' Creative Problem Solving

Emily Romero, University of Northern Colorado
Does Everyday Creativity predict Academic Success? A Study with Student Veterans

Christa Taylor, Université catholique de Louvain
The role of creative identity in the association between gender-biased beliefs about creativity
and creative outcomes

Dr Rebecca Chamberlain (PI) & Aleksandra Igdalova (Project Research Assistant)

Goldsmiths, University of London

Mindfulness techniques increasingly feature in the visitor engagement approaches of arts institutions, linking in with initiatives such as Slow Art Day. The proposed research aims to understand how a mindfulness breathing exercise (MBE) impacts aesthetic experience via physiological arousal within an art gallery context. Participants will be allocated to one of three groups, watching a MBE video, an informational video (about the exhibition) or no video prior to viewing two artworks in a dedicated gallery space. Physiological arousal via heart-rate variability (HRV) will be measured using Empatica wrist sensors, before and after the MBE. Self-report questionnaires will elicit data on participants mood before and after the MBE using an affect grid. We will also collect data on aesthetic engagement with the artworks. Data collection will take place in conjunction with Slow Art Day (April 2nd 2022) at Manchester Art Gallery in the UK. Data analysis will first focus on between-group comparisons of behavioural and physiological data during the pre-viewing phase and the artwork viewing phase, and subsequently on the relationship between individual differences in physiological responses to the pre-viewing activity and behavioural responses during artwork viewing. These insights will provide a more complete understanding of the phenomenology of aesthetic experiences in ecologically valid contexts, as well as the efficacy of interventions to augment the aesthetic experience.

*Note that due to covid restrictions on data collection, we will now be collecting data in April 2022, rather than between January – March 2022 as initially proposed in our funding application.

Title: Virtual Art Visits: Examining the Well-Being Impacts of Immersion

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Abstract

Throughout history, visual art has helped people feel connected to each other, experience a deep sense of belonging to their communities, and enhance their own well-being. But the COVID-19 pandemic has radically changed how people are engaging with visual art as most museums have been forced to close or greatly restrict visitation. Many museums are increasing their digital presence to continue to engage with the public, including curating unique virtual experiences. The present research examines the well-being effects of a virtual art museum visit. Specifically, we examine the influence of the recently introduced mechanism of immersion theorized to contribute to the link between art engagement and well-being. Participants were 155 adults from the United States recruited via Prolific. Participants completed a 15-minute virtual gallery experience and were randomly assigned to one of three conditions: 1) To spend 5 minutes selecting one work and then spend 10 minutes engaging in mindful looking (*Mindful Immersion* condition); 2) To spend 5 minutes selecting one work and then spend 10 minutes engaging in curious looking (*Curious Immersion* condition); or 3) To spend 15 minutes viewing the art however they wished (*Control Non-Immersion* condition). Participants completed measures of well-being (i.e., Brief Inventory of Thriving, Satisfaction with Life Scale, and Psychological Well-Being Scale) before and after their gallery experience and indicated the emotions experienced during the virtual visit. Additionally, data were collected regarding participant behavior within the gallery, including which artworks they viewed and for how long. Preliminary analyses indicate that the three conditions did not differ on the majority of well-being indices or in their emotional experiences within the gallery; however, all conditions experienced a range of well-being increases following their virtual art experience. This suggests that virtual art engagement may hold well-being benefits for those who engage in these experiences.

Aesthetic experience of street art: Cross-cultural studies in Poland and Hong Kong

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Abstract

Street art refers to contemporary artworks that are created for showing in public space. A cultural perspective has been scarce in the research on the aesthetic experience of street art. This study investigates whether European and Asian viewers appreciate differentially graffiti murals originated from across the West and the East.

Participants were college students without previous or current art education from Lublin ($n = 97$) and Hong Kong ($n = 91$). We intended to examine how their aesthetic experiences could vary as a function of four variables: *art origin* (West vs. East), *period* (contemporary vs. historical), *medium* (wall vs. canvas), and *viewer's background* (European vs. Asian). They viewed 16 x 2 origins x 2 periods x 2 media = 128 artworks on a computer screen, one by one in a randomized order. They evaluated each artwork in terms of *art classification*, *understanding*, and *liking*; they also reported their interests and experts in contemporary art and the visual arts.

Repeated measures ANOVAs revealed significant four-way interactions in all three DVs, suggesting that aesthetic experiences behave differentially across cultures (as manifested by art origin and viewer's background) for different artwork types (as manifested by period and medium). Follow-up repeated measures ANOVAs focusing on graffiti murals (period = contemporary, medium = wall) revealed significant two-way interactions in all three DVs, suggesting that viewers of different cultural backgrounds differ in appreciating graffiti murals from different cultural origins.

Specifically, Polish participants classified the Western graffiti murals as art more than the Eastern ones, whereas Hong Kong participants did not classify Western and Eastern graffiti murals as art differentially. Similarly, Polish participants understood the Western graffiti murals more than the Eastern ones, whereas Hong Kong participants did not understand Western and Eastern graffiti murals differentially. Finally, both Polish and Hong Kong participants liked the Western graffiti murals more than the Eastern ones. In a nutshell, Polish viewers tend to appreciate Western and Eastern graffiti murals differentially, whereas Hong Kong viewers tend *not* to do so.

Additional analyses showed that, in comparison with the Polish participants, the Hong Kong participants reported significantly higher interests and experts in both contemporary art and the visual arts. That might help explain the current interactions. Raised in an internationalized city, Hong Kong people might be generally more receptive than Polish people to contemporary art and visual arts including both Western and Eastern street art.

Crafting Life Stories in Photocollage:
An Online Creative Art-based Intervention for Older Adults

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Abstract

The Creative arts therapies (CAT) provide a safe and creative environment for older adults to process life experiences and maintain personal growth while aging. There is a growing need to make arts therapies more accessible to the aging population, as many have limited access to these services. This need has been catalyzed by the advent of the COVID-19 pandemic. Tele-CAT offers a possible solution. This presentation will introduce a study that explored the experiences of older adults who participated in an online creative process of digital photocollage. In this study we aimed to better understand how the specific nature of the CAT can successfully be integrated into an online format with older adults.

Twenty-four Italian and Israeli community-dwelling older adults aged 78 to 92 participated in this research through the Zoom application. The creative process consisted of three individual 90-minute online sessions, in which participants created three separate photocollages. Transcriptions of the sessions and the art products of the photocollage were qualitatively analyzed through Thematic Analysis.

The findings show that the visual stimuli supported the participants' narratives and engaged them in more symbolic language, which stimulated the expression of the mental content. This symbolic language enabled non-verbal aspects of the personal experiences to be expressed. Moreover, the findings show how the creative process engaged the participants in an embodied sensorial experience, despite the digital-remote format.

The process facilitated concretization, since the mental content that was stimulated by the images was transformed into the externalized tangible artistic presentation of photocollage, which one could reflect upon. The format of the photocollage also encouraged the creation of an integrative view of the self, since various life experiences were visualized and integrated within the same art product. In this way the creative process allowed participants to reminisce

and process issues connected with their aging, future perspectives, spirituality and end-of-life experiences.

To summarize, the findings suggest that tele-CAT with photocollages can make creative therapeutic processes more accessible to the aging population. The presentation will discuss both the advantages and challenges of the process, accompanied by demonstrations of the creative therapeutic process.

Project REAL (Role of Emotions in Actors' Living) Performance

Acting – specifically theatre – is an art form known for its ability to transform scripted language into living, breathing, human dialogue and performance. As theatre is in ensemble art form, exploring the creativity of an actor is difficult to isolate; thus, empirical studies looking at performance creativity in individual actors are limited. Furthermore, theatre is an art form that requires an audience to actively evaluate is effectiveness. The audition process of theatre is often the most intense and concentrated evaluation of an actor's creative potential and emotional effectiveness, where individual actors are often asked to perform a monologue with little or no preparation. In this study, 40 non-actor and 35 actor participants were given the task of performing a monologue with little preparation. The video data of this performance were then evaluated by a panel of theatre experts (directors, educators, and working performers) using the Consensual Assessment Technique (CAT; Amabile, 1982) to determine the creativity of the acting. In addition, participants were asked to complete a series of questionnaires including the self-report Beliefs About Creativity Scale (BACS; Hass, Katz-Buonincontro & Reiter-Palmon, 2016), the Creative Achievement Questionnaire (CAQ; Carson et al., 2003), Positive and Negative Affect Schedule (PANAS; Watson, Clark, & Tellegen, 1988), Interpersonal Reactivity Index (IRI; David, 1983), Neuroticism-Extroversion-Openness Five Factor Inventory (NEO-FFI; Costa & McRae, 1989), Multidimensional Assessment of Interoceptive Awareness (MAIA-2; Mehlig et al., 2008), the Emotion Regulation Questionnaire (ERQ; Gross et al., 2003) and an emotion wheel-based (Plutchik, 1980) checklist to identify emotions in the given monologue. We hypothesize that acting creativity scores will correlate to self-reported BACS creativity scores in the actor participants, and that higher creativity scores will correlate to higher emotional regulation score in all participants.

First Year Students' Creative Problem Solving

Chelsea Miller (PI), Sue Hyeon Paek (Co-PI)

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In the average school year, first-year students (FYS) already struggle with adjusting to the new environment and adult expectations. FYS attrition could be due to many stressors including financial responsibility, adjusting to a new environment, creating a new support system, working, and family obligations (McFadden, 2016). It is undoubtful that daily challenges of FYS in higher education get worse over COVID-19. Perhaps, creative problem-solving (CPS)—an ability creating solutions that are novel and effective to specific tasks or problems (Treffinger et al., 2006)—specific to higher education is key for FYS to successfully navigate unexpected daily challenges which is largely understudied. Therefore, the present study aimed to examine what factors explained FYS's creative problem-solving to specific problems that FYS experienced in their learning over COVID-19. We recruited and asked FYS ($n = 100$) respond to an online questionnaire consisting of three CPS tasks, creative adaptability scale (CAS; Orkibi, 2021), and creative process associated with creativity scale (CPAC; Miller, 2014). CPS tasks are three vignettes describing daily hassles that inhibit learning covering three themes of trouble with roommates, poor planning/time management, and group cooperation. The participants were asked to respond with as many creative solutions as possible to the problem posed. Then, originality and usefulness of the responses were scored by three judges then combined into a composite CPS score (interrater reliability ICC = .68). Their responses were analyzed in a multiple regression analysis predicting CPS using CAS and CPAC. The results indicated that only CPAC turned out a significant predictor explain CPS, $F_{(2,97)} = 3.31$, $p < .05$, $\beta = .31$, $p < .05$. This may mean that creative process is required when FYS need to come up with new and effective solutions to the specific problems interrupting their learning. We also found a difference in a CPS score by gender (male, female, non-binary) in ANOVA, $F_{(2,97)} = 6.41$, $p < .05$. The gender difference in a CPS score favors non-binary ($M = 14.7$) and female students ($M = 11.4$) over male students ($M = 10.1$). This result indicates that those who are less masculine may be more creatively able to solve daily hassles in their learning which partly supported by the previous literature showing that androgynous people tended to be more creative (Norlander et al., 2000).

Keywords: Creative problem solving, self-regulated learning, first year students

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Does Everyday Creativity predict Academic Success? A Study with Student Veterans
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One growing and under-served demographic on college campuses is student veterans. However, half of student veterans fail to complete bachelor's degrees within six years of matriculation. As they are reintegrated back into civilian life and start school, they deal with various challenges calling for everyday creativity. Thus, the present study aimed to see whether everyday creativity contributed to student veterans' academic success and persistence. Thirty-five undergraduate student veterans recruited from across the country via MTurk and university veterans' services offices answered three tasks that asked them to come up with creative solutions to everyday problems they might encounter in their lives as students, one of which pertained to each of the following daily issues: alienation from classmates, lack of academic readiness, and lingering effects of combat trauma. Participants also took the nine-item Creative Adaptability Scale (CAS) which measured creative behavior, cognition, and emotional adaptability.

Regression results showed that neither the CAS nor creative problem-solving (CPS) scores explained GPA in a significant way, $F_{(8,26)} = 1.15$, $p = .36$. However, persistence was partially explained by behavioral creative adaptability, $\chi^2 = 15.60$ with 8 degrees of freedom, $p < .05$. Female students showed significantly 22.5 times higher probability to be academically persistent than male students, $\beta = 3.16$, Odds Ratio = 23.49, p < .05, indicating that persistence is partially explained by biological sex, a trend which also holds true among American college students as a whole. Also, students who were high in behavioral creative adaptability to stressful situations were 5.8 times more persistent with their enrollment in the subsequent semester at an alpha level of .1. Student veterans may have several challenges at various scales adding stress to their learning that may interrupt them in pursuing the successful completion of higher education. The negative impact of stressful challenges can be alleviated by behavioral creative adaptability—the extent to which students creatively and adaptively respond to stressful situations that eventually prevents them from dropping out of their programs. However, neither originality nor usefulness in their CPS significantly explained academic persistence. The daily challenges highlighted in our scenario-based tasks may have had little to no baring on whether a student veteran persisted or not. Larger challenges such as lingering combat trauma, particularly PTSD, issues in obtaining financial benefits, and the interference of family and work responsibilities with academics may have a larger influence over persistence in veterans.

Key Words: Academic Success, Academic Persistence, Creative Adaptability, Creative Problem-Solving, Everyday Creativity, Student veterans.

The role of creative identity in the association between
gender-biased beliefs about creativity and creative outcomes

Christa L. Taylor, Ph.D. and Baptiste Barbot, Ph.D.

Although gender bias in attributions of creativity (i.e., the extent to which creativity is recognized as characteristic of an individual) has been demonstrated across various contexts, how this bias may differ across domains and influence gender differences in creative outcomes have not yet been examined. In two studies, we examined how gender-biased beliefs about creativity relate to gender differences in creative identity, and in turn how these differences relate to creative behavior, achievement, and performance. In the first study, 408 adults completed three questionnaires designed to assess gender bias in attributions of creativity across nine domains (i.e., literature, music, arts-and-crafts, visual art, sports, cooking, performing arts, engineering, and science). Participants also completed a scale assessing how important they believe eight masculine-agentic traits (e.g., decisive and competitive) and eight feminine-communal traits (e.g., sensitive and cooperative) to be for creativity across five domains, as well as several demographic items (age, ethnicity, gender, and gender fit). The results of a Bayesian Structural Equation Model revealed that gender bias in attributions of creativity differs across creative domains. Latent difference scores indicating the degree of creativity attributed to men versus women in each domain were statistically significant across all domains (with the exception of music). Whereas participants attributed greater creativity to men in the science, engineering, and sports domains, they attributed greater creativity to women in the arts-and-crafts, cooking, literature, visual arts, and performing arts domains. In the second study (in progress), adults ($N \geq 340$) will complete a semantic misattribution test adapted to assess their level of gender bias in attributions of creativity, the Short Scale of Creative Self (SSCS; Karwowski et al., 2018) to assess their creative identity, and the arts-and-crafts, cooking, sports, and sciences-and-engineering domains of the Inventory of Creative Activities and Achievements (ICAA; Diedrich et al., 2018), followed by creative cooking and engineering performance-based tasks (to be rated using the Consensual Assessment Technique (Amabile, 1982). The hypothesized model will be analyzed using Structural Equation Modeling to determine if gender moderates the effect of gender bias on creative outcomes, mediated by creative identity. Specifically, we expect that gender bias will be negatively associated with creative identity and creative outcomes for women but not men. Further, we expect that effects will be stronger for male-typed domains (i.e., sciences-and-engineering and sports) compared to female-typed domains (i.e., cooking and arts-and crafts). Together, these studies will inform understanding of the gender gap in creative achievement.