

NKU Faculty Research, Scholarship and Creative Activity Highlights

VOLUME 3 // NUMBER 3

Are you looking for a writing or grant accountability group for the new year?

Some faculty and staff colleagues have expressed interest in creating a group that can meet in person or online to help set goals, provide feedback or even commiserate on progress! If you are interested in joining this group, please fill out this [survey](#) with your general availability and we'll help facilitate your first meeting(s).

Please email Shauna Reilly with any questions: reillys3@nku.edu.

STEVE BIEN-AIME

Assistant Professor - School of Media and Communication

10/4/2022

[Bien-Aime co-authors study on sports, social media and mental health](#)

On May 31, 2021, Naomi Osaka, one of the top-ranked female tennis players, and one of the highest-paid female athletes in the world, announced her withdrawal from the French Open on her social media (Twitter) account, citing mental health issues. There exists a stigma around mental health; and people suffering from mental health conditions often experience “discrimination and stigma” (World Health Organization, 2019). Such disclosures by a noted sportsperson provide an opportunity to help combat the stigma. The present study uses unsupervised machine learning and qualitative thematic analysis to analyze 11,800 English language responses to her tweet. Results indicate that Osaka’s tweet mostly garnered a lot of support and encouragement. However, there also existed some negative comments. Additionally, 40% of the negative comments were disseminated by bot-like automated accounts. Practical implications for sports communication are also discussed.

* Kumble, S., Diddi, P., & Bien-Aimé, S. (2022). ‘Your Strength Is Inspirational’: How Naomi Osaka’s Twitter Announcement Destigmatizes Mental Health Disclosures. *Communication & Sport* (online).

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KATHLEEN FUEGEN

Associate Professor – Psychological Science

12/2/2022

[Drs. Fuegen and Breitenbecher publish article on physical activity and well-being](#)

We conducted an experiment to compare the effect of exercise in an outdoor natural environment with that of exercise in an indoor simulated natural environment on measures of exertion and emotions. Our objectives were to examine how the exercise environment changed emotion and the relationship between emotion and exertion. We tested the possibility that differences in physiological exertion across environments may explain the beneficial effect of green exercise on emotion. Seventy-four college students were randomly assigned to walk at a comfortable pace for 15 min on an outdoor path with views of natural and built elements or an indoor treadmill while watching a video of the sights seen along the outdoor path. We administered measures of positive and negative emotions, heart rate, and rate of perceived exertion. Participants who walked outdoors attained a higher average heart rate but did not perceive they were exerting themselves more than participants who walked indoors. Participants who walked outdoors also experienced a greater increase in energy than participants who walked indoors, though participants who walked indoors experienced a decrease in tension. There was no evidence that heart rate explained the difference between the indoor and outdoor groups with respect to energy or tension. Future studies could examine the association between environment, emotion, and exertion using other measures of exercise-induced emotions and physiological exertion.

* Fuegen, K., & Breitenbecher, K. H. (2002). Walking outdoors increases heart rate but not perceived exertion. *Ecopsychology*, 14(4), 215-225. doi: 10.1089/eco.2021.0043

ALLYSON GRAF

Assistant Professor - Psychological Science

10/25/2022

[Dr. Graf coauthors publication with student on intergenerational contact](#)

Among older adults, aging anxiety and ageist attitudes negatively relate to one's future time perspective. It is unclear when this pattern emerges in the lifespan. Previous research has shown that high-quality intergenerational contact is associated with reduced aging anxiety and ageist attitudes. The goal of the current study was to examine a theoretically derived model of the interrelationships between intergenerational contact, aging anxiety, ageist attitudes, and future time perspective among young adults. Results replicated the relationship between intergenerational contact, aging anxiety, and ageist attitudes with resulting implications for future time perspective.

* Davis, E. C., & Graf, A. S. (Advanced online publication 2022). Intergenerational contact in young adults in relation to aging anxiety, attitudes, and future time perspective. *Journal of Intergenerational Relationships*.

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SUK-HEE KIM

Associate Professor – School of Social Work

11/15/22

[Dr. Suk-hee Kim and her colleagues' peer reviewed manuscript recently accepted for publication in the Journal of Human Behavior in the Social Environment](#)

While cognitive impairment has traditionally been conceptualized from a medical model, the study examines the potential ability for non-pharmacological, evidence-based interventions to sustain the brain health of cognitively impaired aging adults living in institutional settings. This cross-sectional study included thirty older adults living in a nursing home setting, including aged 65 years and older in a metropolitan region. Participants reported engaging in several non-pharmacological physical and social activities. Non-parametric testing was used to examine differences between pre-test and post-test for several outcomes: MoCA (Montreal Cognitive Assessment) average 16.56 (SD=3.585), range [9,21], CLOX significantly increased between pre [average of .83 (SD=.707)] and post [2 (SD=1.044)] intervention, UCLA increased from 8.33 (SD=6.979) to 10.93 (SD=9.294) indicating participants were found to have significantly decreased cognitive impairment. Current evidence and future directions for assessing the effectiveness of noninvasive, non-pharmacological, cost-effective intervention and prevention for healthy brain aging are discussed.

* Schneider, C., Kim, S., Young, K., & Canfield, J. P. (accepted). A Pilot study of non-pharmacological interventions for cognitive impairment. *Journal of Human Behavior in the Social Environment*.

SHARIF MAZMUDER

Assistant Professor – Accounting, Economics, and Finance

12/24/2022

[Dr. Mazumder publishes in Journal of Multinational Financial Management](#)

Motivated by existing research on the informational and monitoring role of social trust, we examine how social trust affects firms' choice between bank debt and public debt. Using firm-level data from 33 countries, we document that higher social trust is associated positively (negatively) with the long-term public (bank) debt ratio. The findings are robust when we control for other important country-level and firm-level factors. There are two possible channels of this association. We find that social trust affects debt structure through monitoring and borrowers' incentive channels. To address potential endogeneity, we use instrumental variables, propensity score and entropy balancing matching, and large change analyses and document that our findings are robust. Examining the effect of debt structure on firm performance, we find that Tobin's Q associates positively with long-term public debt ratios in high-trust countries.

* Mazumder, S., & Rao, R. (2022). Social Trust and the Choice between Bank Debt and Public Debt: Evidence from International Data. *Journal of Multinational Financial Management*, 100781.

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BRITTANY SMITH

Assistant Professor - Psychological Science

10/10/2022

[Dr. Smith publishes research article on prenatal opioid exposure](#)

Rates of opioid use during pregnancy have increased in parallel with the opioid epidemic and children exposed to opioids during the prenatal period (before birth) are at an increased risk of developing behavioral disorders. Smith et al. use a mouse model to study the behavioral effects of prenatal opioid exposure in both male and female offspring. Male exposed offspring have deficits in learning, motivation, and attention, while females are much less affected. Both sexes show an increase in sociability after exposure. Finally, the brain's immune system may play a role in shaping brain development after prenatal opioid exposure.

* Smith, B. L., Guzman, T. A., Brendle, A. H., Laaker, C. J., Ford, A., Hiltz, A. R., Zhao, J., Setchell, K. D. R., & Reyes, T. M. (2022). Perinatal morphine exposure leads to sex-dependent executive function deficits and microglial changes in mice. *ENeuro.org*.

VIJAY V. RAGHAVAN

Professor - The School of Computing and Analytics

10/19/2022

[Dr. Vijay Raghavan publishes a paper in Journal of Computer Information Systems](#)

Recent studies on information systems development have focused more on project management methods such as Agile and Kanban. These styles are often implemented at an organizational level. We study project leadership styles at an individual level to see whether different leadership styles can be employed with different types of employees and genders to improve project performance. We found that the participative style positively impacted the psychological outcome. In turn, the psychological outcome positively affected the internal efficiencies of the project. The results also showed that the participative leadership style showed a higher level of psychological satisfaction for females. The directive leadership style had an adverse effect on in-house employees but a positive effect on outsourced employees. These differences highlight how project managers should manage these groups differently to achieve desired project outcomes

* Raghavan, V. V. and R. Chinta (2022) Influence of Leadership Style on Information Systems Project Outcomes, *Journal of Computer Information Systems* DOI: 10.1080/08874417.2022.2121781.

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JOSE SAAVEDRA TORRES

Assistant Professor - Marketing, Sports Business & Event Management, and Construction Management
10/31/2022

[Dr. Jose Saavedra Torres publishes article on Personal Relevance Matters](#)

The job market puts pressure on marketing educators to adapt the content of their courses to current business events impacted by race, diversity, and gender issues. However, students may experience discomfort when learning about and discussing controversial topics that are not normally discussed in class. To provide tools for educators to tackle this problem, we conducted an experiment using online discussion boards, manipulating the sequence order of the questions asked to the students. A sentiment analysis offered evidence that a specific set of questions can trigger students' personal relevance, reducing their racial priming. This will increase the students' willingness to participate in an open discussion about race, diversity, and gender issues with their peers. The main contribution is a specific educational design that allows instructors to incorporate sensitive topics into their marketing courses without jeopardizing the classroom dynamic.

* Saavedra Torres, J., McLeod, B., and Houghton, D. M. (2022). Personal Relevance Matters: Reducing Racial Priming on Discussion Boards about Racial Issues in Marketing Courses. *Marketing Education Review*. (vol-ahead-of-print).

JUSTIN YATES

Professor – Psychological Science
12/13/2022

[Dr. Justin Yates publishes textbook on addiction](#)

Determinants of Addiction: Neurobiological, Behavioral, Cognitive, and Sociocultural Factors unravels the complexities underlying addiction to understand how individual factors at the genetic, cellular, anatomical, cognitive-behavioral, and sociocultural level can influence susceptibility to substance use disorders. The first section reviews the neurobiological determinants of addiction and examines how drugs hijack the reward pathway and alter numerous neurotransmitter systems such as dopamine. The second section covers the behavioral-cognitive determinants of addiction such as conditioning, memory processes, and decision-making. The final section examines individual differences in addiction vulnerability, with a focus on personality factors, sociocultural factors, sex/gender, and stress.

* Yates, J. R. (2023). *Determinants of addiction: Neurobiological, behavioral, cognitive, and sociocultural factors*. Academic Press.

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Other Research News

JAMES WALDEN and NICHOLAS CAPORUSSO

Professor, Assistant Professor - School of Computing and Analytics

11/12/2022

[James Walden and Nicholas Caporusso win distinguished paper award](#)

Professors James Walden, Nicholas Caporusso and student Ludiana Atnafu won the distinguished paper award at EDSIGCON for their paper "A Chatbot for Teaching Secure Programming." As online sources about programming often provide incorrect advice and insecure code examples, the authors developed a chatbot with an authoritative knowledge base on secure programming. The chatbot was used by students in a web development class to help them complete five secure programming exercises.

Seeking Research and Creative Project Collaborators

Are you looking for a collaborator on a project? In our next edition, we'll include postings by faculty and staff who are looking for collaborators on specific projects. Use this [link](#) to fill out the form for inclusion.

Do you have research, scholarship or creative activity to share?

Use this [link](#) to submit for the next edition.

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