

Sandra Matz

Curriculum Vitae

Columbia Business School
312 Kravis Hall, Manhattanville Campus

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Field of Specialization

Business Management with a background in psychology, computer science, organizational behavior and consumer behavior. My work leverages Big Data analytics to describe, predict and influence how people and organizations think, feel and behave.

Education

- 06/2017 **Ph.D. in Psychology**
University of Cambridge (UK)
 - Thesis: Psychological Fit in Consumption - A Big Data Approach
 - Supervisor: John Rust
- 09/2016 – 12/2016 **Visiting Researcher**
University of Texas at Austin, Department of Psychology
 - Sponsor: Sam Gosling
- 04/2016 - 06/2016 **Visiting Researcher**
Stanford Graduate School of Business (Management Group)
 - Sponsor: Michal Kosinski
- 10/2009 - 08/2013 **B.Sc. in Psychology (Distinction)**
Albert-Ludwigs-University Freiburg (Germany)
 - Thesis: Tell me what you like and I tell you who you are: Development and preliminary validation of the preference-based personality questionnaire (PPQ)
 - Supervisor: Michal Kosinski (external)
- 10//2011 - 07/2012 **One-year-visiting student in Politics, Psychology and Sociology**
University of Cambridge (UK)

Academic Appointments

- 07/2020-present **Associate Professor of Management**
Columbia Business School
- 07/2017-06/2020 **Assistant Professor of Management**
Columbia Business School
- 04/2018-05/2018 **Visiting Professor of Marketing**
University College Dublin

Awards and Honours

Date	Award
08/2022	SAGE Early-Career Trajectory Award Society for Personality and Social Psychology Recognizes young scholars in the field of social and personality psychology
08/2022	Dean's Award for Teaching in the Core Columbia Business School Recognizes teaching excellence in the classroom
05/2021	Poets and Quants Top 40 under 40 Business School Professors Recognizes young professors for their teaching and mentorship see Interview here
10/2019	Capital Young Elite 40 under 40 Capital Magazine Recognizes young men and women who contribute science and society
08/2019	Young Pioneer World Frontiers Forum Recognizes young men and women who contribute science and society see Interview here
04/2016	Top 30 Thinkers under 30 Pacific Standard Magazine Recognizes young men and women predicted to have a serious impact on the social, political, and economic issues
02/2010 – 07/2017	Full Undergraduate and Graduate scholarship German National Academic Foundation Total amount: \$115,000
02/2016	2016 Big Data 100 DataIQ Recognizes the 100 most influential data marketers in the UK
09/2016	Kurt Hahn Scholarship Kurt Hahn Trust Total amount: £ 3,000 (~ \$4,500)
02/2015	2015 Big Data 100 DataIQ Recognizes the 100 most influential data marketers in the UK
07/2014	New Talent Award for Data Marketers under 30 DataIQ Recognizes a young talent in data-driven marketing

Grants

Date	Award
2023	Columbia Business School Digital Future Initiative Research Grant 25k
2022	Columbia Business School Curriculum Development Grant Focusing on the Digital Future of Business (with Dan Wang, Funding for 2-year Postdoc + USD 25k)
2022	Tamer Center Center Climate Fund (USD 80k). <u>Project:</u> Using Climate Change Prediction Markets to Shift Climate Believe
2021	Columbia University Magic Grant (together with Jeff Hancock at Stanford, USD 11k on Columbia side only). <u>Project:</u> Can digital literacy interventions improve older adults' detection of misinformation while enhancing trust in real news? A randomized control trial.
2018	Columbia University Provost's Grant for Diversity (USD 10k)
2015	Accenture Innovation Award (with Michal Kosinski at Stanford University, USD 25k)

Publications

Authorship order in cognitive psychology, social psychology and management is conventionally based on contribution, with the first author having made the largest contribution followed by the senior author. However, I often I give first authorship to my graduate students even if we both contributed equally. I have marked graduate/postdoctoral students with an + and indicate shared first-authorship with a *.

My Google Scholar page can be accessed [here](#).

Citations: 420, H-index: 23, i10-index: 33 (as of 07/28/2023)

Peer Reviewed Publications

Matz, S. C., Beck, E., Atherton, O., White, M., Kim, M., Rauthmann, J., Mroczek, D. & Bogg, T. (2023). The Promise of Personality Science in the Digital Age: How Psychological Targeting Can Be Used to Personalize Behavior Change Interventions at Scale. *Perspectives on Psychological Science*.

Schabert, J. *et al.* (2023). A Global ESM Study of Well-Being During Times of Crises: The CoCo Project. *Social and Personality Psychology Compass*.

Freiberg, B.+ & **Matz, S. C.** (2023). Founder personality and entrepreneurial success: A large-scale field study of technology startups. *Proceedings of the National Academy of Science*.

- Peters, H. +, **Matz, S. C.** & Cerf, M. (2023). Sensory Substitution Can Improve Decision-Making. *Computers in Human Behavior*.
- Cerf, M., **Matz, S. C.** & MacIver, M. A. (2023) Participating in a climate futures market increases support for costly climate policies. *Nature Climate Change (Policy Brief)*, 13, 511–512.
- Cerf, M., **Matz, S. C.** & MacIver M. A. (2023). Participating in a climate prediction market can increase concern about global warming. *Nature Climate Change*, 13, 523-531.
- Matz, S. C.**, Bukow, C. S., Peter, H., Dinu, A., Deacons, C. & Stachl, C. (2023). Throwing the cap or throwing in the towel? Using machine learning to predict student retention from socio-demographic characteristics and app-based engagement metrics. *Scientific Reports*
- Matz, S. C.**, Gladstone, J. J. & Farrokhnia, R. A. 2023). Leveraging Psychological Fit to Encourage Saving Behavior. *American Psychologist*.
- Mueller*+, S.R., Delahunty, F. & **Matz***, **S.C.** (2023). The Impact of the Early Stages of COVID-19 on Mental Health in the United States, Germany, and the United Kingdom. *Journal of Personality and Social Psychology*.
- Matz, S.C.**, Hyon, R., Baek, E.C., Parkinson, C., & Cerf, M. (2022). Personality similarity predicts synchronous neural responses in fMRI and EEG data. *Scientific Reports*, 12, 14325.
- Peters, H.+ , Friedrich M. Götz, F. M., Ebert, T., Müller, S. R., Rentfrow, P. J., Gosling, S. D., Obschonka, M., Ames, D. , Potter, J. & **Matz, S. C.** (2022). Regional personality differences predict variation in early COVID-19 infections and regional mobility patterns. *Journal of Personality and Social Psychology*.
- Lawson*+, M. A. Martin, A. E., Huda, I. & **Matz, S. C.** (2022). Hiring women into senior leadership positions is associated with a reduction in gender stereotypes in organizational language. *Proceedings of the National Academy of Science*.
- Jachimowicz, J., M., Frey, E. L., **Matz, S. C.**, Jeronimus, B. F., & Galinsky, A. (2022). The Sharp Spikes of Poverty: Financial Scarcity Is Related to Higher Levels of Distress Intensity in Daily Life. *Social Psychological and Personality Science*.
- Ramon*+, Y., **Matz, S. C.**, Farrokhnia, R. A. & Martens, D. (2022). Explainable AI for Psychological Profiling from Digital Footprints: A Case Study of Big Five Personality Predictions from Spending Data. *Information*.
- Giorgi, S., Lynn, V., Gupta, K., Ahmed, F., **Matz, S. C.**, Ungar, L., Schwartz, H. A. (2022). Correcting sociodemographic selection bias for population prediction from social media. *ICWSM '22*
- Stachl, C., Boyd, R. L., Horstman, K.T, Khambatta, P. **Matz, S. C.**, & Harari, G. M. (2021). Computational personality assessment. *Personality Science*, 2, 1-22.
- Matz, S.C.** (2021). Personal Echo Chambers: Openness-to-experience is linked to higher levels of psychological interest diversity in large-scale behavioral data. *Journal of Personality and Social Psychology*.
- Müller*+, S. R, Chen*, X, Peters, H, Chaintreau, A. & **Matz, S. C.** (2021). Depression predictions from GPS-based mobility do not generalize well to large, demographically heterogeneous samples. *Scientific Reports*.
- Gladstone, J., Garbinsky, E., & **Matz, S. C.** (2021). When Does Psychological Fit Matter? The Moderating Role of Price on Self-Brand Congruity. *Social Psychology and Personality Science*.

- Tovanich, N., Centellegher, S., Seghouani, N. B., Gladstone, J., **Matz, S. C.**, & Lepri, B. (2021). Inferring psychological traits from spending categories and dynamic consumption patterns. *EPJ Data Science*, 10(1), 1-23.
- Bailey*+, E., **Matz, S. C.***, Youyou, W. & Iyengar, S. (2020). Authentic Self-Expression on Social Media is Associated with Greater Subjective Well-Being. *Nature Communications*.
- Ruggeri, K., Garcia-Garzon, E., Maguire, A., **Matz, S. C.**, Huppert, F. (2020). Well-being in Europe: A comprehensive measure to explore populations and profiles. *Health and Quality of Life Outcomes*.
- Wertenbrock, K., [...], Matz, S. C., [...] & Zweber, Y. (2020). Autonomy in consumer choice. *Marketing Letters*.
- Goetz, F+, Ebert, T., Mueller, S. R., Gladstone, J. J. & **Matz, S. C.** (2020). Spending reflects not only who we are but also who we are around: The joint effects of individual-level and geographic personality on consumption. *Journal of Personality and Social Psychology*
- Matz, S. C.**, & Harari, G. (2020). Person-environment transactions: Mapping the relationships between Big Five personality traits, states, and daily places. *Journal of Personality and Social Psychology*
- Greenberg, D. M.*+, **Matz, S. C.***, Schwartz, A. & Frick, K. R. (2020). The self-congruity effect of music. *Journal of Personality and Social Psychology*.
- Mueller+, S., Peters, H., **Matz, S. C.**, Wang, W. & Harari, G. (2020). Everyday Mobility Behaviors Predict Psychological WellBeing Among Young Adults. *European Journal of Personality*.
- Hall, A+. & **Matz, S. C.** (2020). Targeting Item-Level Nuances Leads to Small but Robust Improvements in Personality Prediction from Digital Footprints. *European Journal of Personality*.
- Cerf, M, **Matz, S. C.** & Berg, A. (2020). Using Blockchain to Improve Decision Making that Benefits the Public Good. *Frontiers in Blockchain*.
- Cowgill, B., Dell'Acqua, F. & **Matz, S. C.** (2020). Algorithmic Fairness Rethoric. *American Economic Association Papers and Proceedings*
- Matz, S. C.**, Appel, R., & Kosinski, M. (2019). Privacy in the Age of Psychological Targeting. *Current Opinion in Psychology*.
- Matz, S. C.**, Menges, J. I., Stillwell, D. J. & Schwartz, H. A. (2019). Income is predictable from Facebook profiles. *PLoS ONE*.
- Matz, S. C.**, Segalin, C., Stillwell, D., Müller, S. R. & Bos, M. (2019). Using computational methods to predict personal image appeal. *Journal of Consumer Psychology*
- Gladstone, J. J.*+, & **Matz, S. C.***, Lemaire, A. (2019). Can Psychological Traits be Inferred from Spending: Evidence from Transaction Data. *Psychological Science*, 30(7):1087-1096.
- Matz, S. C.**, & Gladstone, J.J. (2018). Nice Guys Finish Last: Why and when agreeableness is related to economic hardship. *Journal of Personality and Social Psychology*.
- Kulkarni+, V., Kern M. L., Stillwell, D., Kosinski, M., **Matz, S. C.**, Ungar, L., Skiena, S. & Schwartz, A. (2018). Latent Human Traits in the Language of Social Media: An Open-Vocabulary Approach. *PLoS ONE*.
- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2018). Reply to Sharp et al.: Psychological targeting produces robust effects. *Proceedings of the National Academy of Science*.

- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2018). Reply to Eckles et al.: Facebook's optimization algorithms are highly unlikely to explain the effects of psychological targeting. *Proceedings of the National Academy of Science*.
- Matz, S. C.**, Kosinski, M., Nave, G., & Stillwell, D. (2017). Psychological Targeting as an Effective Approach to Digital Mass Communication. *Proceedings of the National Academy of Science*.
- Matz, S. C.**, & Netzer, O. (2017). Using Big Data as a Window Into Consumer Psychology. *Current Opinion in Behavioral Science*, 18, 7-12.
- Matz, S. C.**, Gladstone, J. J., & Stilwell, D. (2017). In the World of Big Data, Small Effects Can Still Matter: Reply to Boyce et al. *Psychological Science*, 28(4):547-550.
- Behrendt, P., **Matz, S. C.** & Goeritz, A. (2017). An integrative model of leadership behaviour. *Leadership Quarterly*, 28(1), 229-244.
- Müller[†], S. R, Harari, G. M., Mehrotra, A., **Matz, S. C.**, Khambatta, P., Musolesi, M., Mascolo, C., Gosling, S. D., & Rentfrow, P. J. (2017). Using human raters to characterize the psychological characteristics of GPS-based places. *Proceedings of the 2017 ACM International Joint Conference on Pervasive and Ubiquitous Computing*, 157-160
- Matz, S. C.**, Gladstone, J. J. & Stillwell, D. (2016). Money Buys Happiness if Spending Fits our Personality. *Psychological Science*, 27(5), 715-725.
- Kosinski, M., **Matz, S. C.**, Gosling, S., Popov, V. & Stillwell, D (2015). Facebook as a Social Science Research Tool: Opportunities, Challenges, Ethical Considerations and Practical Guidelines. *American Psychologist*, 70(6), 543-56.

Books

- S. C. Matz** (2022). *The Psychology of Technology: Social Science Research in the Age of Big Data*. APA.

Book chapters

- Beierle, F., **Matz, S. C.**, & Allemand, M. (in press). Mobile Sensing in Personality Science. In Mehl, Wrzus, Eid, Harari & Ebner Priemer, *Mobile Sensin in Psychology*
- Lawson, M. A. & **Matz., S.C.** (2022). Saying more than we know: How Big Data provides a window into the human psyche. In S. C. Matz, *The Psychology of Technology*. APA.
- Matz., S.C.**, Appel, R. E., & Croll, B. (2022). Privacy and Ethics in the Age of Big Data. In S. C. Matz, *The Psychology of Technology*. APA.
- Cerf, M., & **Matz., S.C.** (2022). The Psychology of Technology: Where the Future Might Take Us. In S. C. Matz, *The Psychology of Technology*. APA.
- Appel, R. & **Matz, S. C.** (2021). Psychological Targeting in the Age of Big Data. In Wood, Read, Harms & Slaughter, *Measuring and Modeling Persons and Situations*.
- Matz, S. C.**, Rolnik, G., & Cerf, M. (2018). Solutions to the threats of digital monopolies. In Stigler Center ebook *Digital Platforms and Concentration*.
- Plohl, N., Stuhldreier, J., Ruggeri, K., & **Matz, S. C.** (2018). Chapter 10: Communications. In Ruggeri, K. (Ed.). *Behavioral Insights for Evidence-Based Policy*. Routledge.
- Matz, S. C.** & Hirsh, J. (2017). Marketing and Personality. In Carducci, B. J. (eds), *The Wiley Encyclopedia of Personality and Individual Differences*. John Wiley & Sons, Inc.

- Matz, S. C.** (2016). *Personality-customised advertising in the digital environment*. In C. Jansson-Boyd & M. Zawisza (eds), *International Handbook of Consumer Psychology*. Taylor & Francis.
- Matz, S. C.**, Chan, Y. & Kosinski, M. (2016). Models of Personality. In Tkalcic, Decarolis, Kosir & Odić (eds), *Emotions and Personality in Personalized Systems*. Springer
- Behrendt, P. & **Matz, S. C.** (2014). Wie Sie Probleme lösen anstatt sie zu fokussieren. In A. Ryba, D. Pauw, D. Ginati & S. Rietmann (Hrsg.), *Professionell coachen. Das Methodenbuch*: Beltz.

Other Publications

- Matz, S.C.** (2023). What Psychological Targeting Can (and Cannot Do), and How to Use it Right. *Harvard Business Review* (Print Magazine)
- Matz, S. C.** (2022). Now isn't the time to give users control over their data. *Wired*
- Matz, S. C.**, Appel, R. & Kosinski, M. (2019). Rethinking Privacy in the Age of Psychological Targeting. *London School of Economics Blog*
- Matz, S. C** (2018). *Psychological microtargeting could actually save politics*. *Wired*.
- Cerf, M., **Matz, S. C.** & Rolnik, G. (2018). There's still time to stop the tech monopoly takeover. *Fortune Magazine*.
- Graves, C. & **Matz, S. C.** (2018). *What marketers should now about personality-based marketing*. *Harvard Business Review*.
- Jachimowicz, J. **Matz, S. C.** & Polonski, V. (2017). The Behavioral Scientist's Ethics Checklist. *The Behavioral Scientist*.

Work in Progress (Selection)

Schabert, J. *et al.* (Revise and Resubmit), How the Outbreak of War in Ukraine Impaired Psychological Well-Being Across Nations. *Nature Communications*

The Russian invasion of Ukraine on February 24, 2022, has had devastating effects on the Ukrainian population and the global economy, environment, and political order. However, little is known about the war's global psychological impact, that is, its effect on the mental well-being of individuals outside Ukraine. Here, we present an international, longitudinal experience-sampling study (N = 1,341, total assessments = 44,894) that allowed us to investigate the war's psychological effects. We found a significant decline in well-being on the day of the Russian invasion. Recovery over the following weeks depended on an individual's personality but was independent of their age, gender, subjective social status, and political orientation. In general, well-being was lower on days when the war was more salient on social media. Our results demonstrate that the humanitarian, economic, and ecological consequences of the Russian invasion extend to a detrimental psychological impact across nations.

Matz, S. C., Teeny, J.D., Vaid, S.S., Harari, G.M., & Cerf, M (Initial Review). *Computers in Human Behavior*.

Matching the language or content of a message to the psychological profile of its recipient (known as "personalized persuasion") is widely considered to be one of the most effective messaging strategies. We demonstrate that the rapid advances in large language models (LLMs), like ChatGPT, could accelerate this influence by making personalized persuasion scalable. Across four studies (with a total N=1,491), we show that personalized messages crafted by LLMs exhibit significantly more influence than non-personalized messages. This was true across different domains of persuasion (e.g., marketing of consu-

mer products, political appeals for climate action) and psychological profiles (e.g., personality traits, political ideology, moral foundations). Our findings are among the first to demonstrate the potential for LLMs to automate, and thereby scale, the use of personalized persuasion in ways that enhance its effectiveness and efficiency. We discuss the implications of the work for researchers, practitioners, and the general public.

Lawson, A., **Matz, S. C.**, Goetz, F., & Martin, A. (Initial Review). Female leaders are more effective but less liked when they use counter-stereotypical language. *Scientific Reports*.

Leaders must make difficult decisions that balance effectively changing their followers' behaviors and retaining their support. This balancing act is especially difficult for women leaders who face a "double-bind" that forces them to trade-off being perceived as either competent or likeable, but rarely both. We examine whether this double-bind in how women leaders are perceived extends to behavioral compliance with their policies and instructions. To investigate this, we constructed a dataset of 3,889 documents (6.1m tokens) capturing U.S. state governors' oral and written communication during the COVID-19 pandemic and combined it with a 13-week panel of Google mobility data containing 17,816 observations and U.S. Nationally representative survey data from 57,532 participants. We show that women who use counter-stereotypical as opposed to stereotypical language in their public-facing communication (e.g., low prevention-focus) are more effective at influencing their constituents' behavior by increasing compliance with social distancing measures. However, this increase in leadership effectiveness comes at the expense of securing their followers' approval, as captured by public surveys. In sum, these data suggest that in crisis situations, the very approaches that women leaders must pursue for the good of their followers may also render their positions in power untenable.

Ward, G., Schwartz, H. A., Giorgi, S. Menges, J. & **Matz, S.C.** (Reject and Resubmit). Negative emotions predict populist voting. *Journal of Personality and Social Psychology*.

The past two decades have witnessed a substantial rise in support for populist parties and causes. Building on a theoretical framework suggesting an elective affinity between negative affect and the demand for populism, we follow a multi-modal, multi-method approach to investigate the empirical foundations of this association. Across four studies, we demonstrate that negative affect – measured via self-reports as well as automated text analyses of over 2 billion Tweets – predicts i) individual-level populist attitudes in survey data (Studies 1a and 1b), ii) populist party vote shares at general elections longitudinally in European countries (Study 2), iii) area-level Brexit voting in the 2016 UK referendum (Study 3) and iv) county-level vote shares for Donald Trump in the 2016 and 2020 US presidential elections (Studies 4a and 4b). Across all data sources and measures, we find that negative affect – both in the form of general sentiment and discrete emotions – is predictive of populist beliefs and voting. In line with our theoretical framework, the only exception to this is for populist politicians who are already in power. Like other incumbents, governing populists do not benefit electorally when their constituents continue to experience negative affect after they have been elected.

Rossignac-Milon, M., Pinelli, F., Shafran, A., & **Matz, S.C.** (Reject and Resubmit) Shared Reality: An Integrative and Generative Construct in Organizational Behavior. *Academy of Management Annals*.

Understanding how people develop and maintain a sense of shared reality—the perception of sharing the same thoughts and feelings as other people about the world—is crucial in an increasingly remote and virtual workplace. Though shared reality has been studied across various fields—from Social Cognition, to Intergroup Relations, Interpersonal Relationships, Developmental Psychology, and Comparative Psychology—little work has directly examined shared reality in the realm of Organizational Behavior. Yet, shared reality permeates work life at every organizational level: teammates feeling on the same page about upcoming project goals, employees perceiving that they agree with the core values of the organization, or close colleagues believing that they share the same qualms about recent administrative changes. In this paper, we conceptualize shared reality as both an integrative and generative construct for OB research. We put forward a conceptual model of shared reality as a predictor of key relational, epistemic,

and workplace outcomes. We demonstrate the value of this model by showing how it can (1) integrate and synthesize prior literature in OB, (2) identify gaps in the literature and generate novel questions for future research, and (3) contribute tools for adapting to an increasingly virtual workplace.

Bailey, E. & **Matz, S. C.** (Initial Review). Seeing Me, Seeing You: Personality similarity predicts perceived authenticity. *PNAS Nexus*.

People like, trust, follow and elect those who seem authentic—defined as behaving in line with one’s true self. However, another person’s true self is uniquely difficult to perceive. We theorize that in making these judgments about others, judges are biased by their own true self. If this is the case, perceived authenticity should be biased by the true self similarity between the judge and target where similar others seem more authentic. We test for this bias using personality to approximate the true self of judges and targets, using a sample of 1,637 advanced degree students randomly assigned to groups of four to six students with round-robin ratings (7,888 observations). Both perceived personality similarity and actual personality similarity between judge-target pairs were correlated with higher evaluations of perceived authenticity. This finding highlights an important bias in our judgments of the authenticity of others, and sheds light on an additional mechanism by which we favor similar others—they seem more real.

Peters, H., Liu, Y., Barbieri, F., Baten, R. A., **Matz, S.C.** & Bos, M. (Initial Review). User Engagement in Context: Predicting Patterns of Active and Passive Use on Snapchat. *Scientific Reports*.

Predicting user behavior is critical for the success of online social platforms. We propose that user engagement on these platforms is habitual and context-contingent, and that the use of context information in predictive models offers a holistic yet light-weight and privacy-preserving representation of user engagement. Using deep neural networks in conjunction with ablation techniques, we demonstrate that patterns of active and passive use are predictable ($R^2=0.522$) and that the integration of context information can substantially improve the predictive performance compared to a behavioral baseline model. Our findings highlight the potential for more privacy-preserving predictive modeling by showing that a large proportion of the variance in user engagement can be explained with minimal behavioral histories if momentary context information is considered. Finally, we employ model explainability techniques to gain preliminary insights into the underlying behavioral mechanisms. Our findings are consistent with the notion of context-contingent, habit-driven patterns of active and passive use, and highlight the value of contextualized representations of user behavior for the prediction of user engagement on social platforms.

Moore, R., Tran, J. D., **Matz, S. C.** & Hancock, J. (Registered Report, Initial Submission) Can digital literacy interventions improve older adults’ detection of misinformation while enhancing trust in real news? A randomized control trial. *Nature Communications*

Older adults have been identified as highly susceptible to misinformation online. A prominent explanation for their vulnerability is that, compared to younger adults, older adults lack the digital media literacy skills needed to sort fact from fiction. Despite a number of interventions aimed at helping people build digital media literacy skills to develop resilience to misinformation, few interventions are tailored to the unique experiences and needs of older adults. In addition, the methodological limitations of existing studies often make it difficult to determine whether the detected effects are causal, durable, or generalizable. We run a randomized controlled trial (N = 1,600) of a popular digital media literacy intervention for older adults (MediaWise for Seniors). By administering pre- and post-intervention surveys to treatment and control groups, we examine how the intervention affects (1) participants’ ability to accurately identify both true *and* false news online, (2) their likelihood of sharing true compared to false news online, and (3) their comprehension and use of digital media literacy tools and techniques. We examine the persistence of the

treatment effects by administering follow-up surveys one week after the intervention. Finally, we complement our survey-based measures with behavioral measures of misinformation and credible news consumption as identified in participants' web browsing data.

Rossignac-Milon, M., Pinelli, F., Ames, D.R., & **Matz, S.C.** (Revising) Shared Reality and Subjective Well-being in Everyday Life: Evidence from Longitudinal and Cross-Cultural Survey Data.

Despite the pervasiveness of shared reality in everyday life, little is known about how shared reality colors day-to-day well-being. Across four intensive longitudinal studies, we explore the relationships between shared reality and well-being. Study 1 uses experience sampling data of 60,209 individuals in 42 countries to show that when people experience greater shared reality with their friends and family, they report higher levels of positive mood. Study 2 replicates the effects of shared reality on a wider range of well-being outcomes using data from 791 individuals who participated in a two-wave longitudinal study. Finally, in Studies 3a and 3b, data from 288 participants in a daily diary paradigm identified closeness and meaning in life as mechanisms underlying the effect of shared reality on well-being. These results suggest that shared reality contributes to daily well-being by satisfying relational and epistemic needs.

Akbulut, C.A., Rossignac-Milon, M., & **Matz, S.C.** (Revising). Shared Reality Predicts Sentiment Extremism on Reddit.

In light of mounting concern over ideologically-motivated violence worldwide, much scholarship has been devoted to the study of extremism in online communities. Research on shared reality has revealed that people are more likely to perceive their own world-view as accurate, objective, and truthful when they believe others share their views, thoughts, and feelings. In this study, we examined whether shared reality in online communities can give rise to the expression of more extreme sentiments. In extracting naturalistic online dialogues on Reddit, we operationalized shared reality between commenters by computing their latent semantic similarity (LSS), a natural language processing index previously linked to shared reality creation. We operationalized extremism through the use of sentiment analysis, a well-validated method of quantifying the direction and intensity of valence in written speech. Using posts from users in both ideologically broad and narrow political Reddit communities, LSS significantly and positively predicted extremism. Our findings indicate that greater shared reality predicts the expression of more extreme sentiments, highlighting how online engagement with like-minded others may promote the radicalization of attitudes.

Ebert, T., Goetz, F., Berkessel, J. B., Wuttke, A., Jonsson T., & **Matz, S. C.** (Revising). Populism thrives where people lead less successful lives: Predicting Trump votes from large-scale biographical data.

Recent years have seen a rise in populism across the world. Which factors contribute to this shift toward populist candidates? We propose that regional differences in *General-Life Success* – the aggregated, retrospective evaluations of people's life outcomes in a geographic region – can act as a holistic measure of privilege and predict populist voting. Adopting a big data approach, we introduce novel data comprising the biographies of 120,804 deceased U.S. residents. These data are largely representative of the actual U.S. population. Using natural language processing, we show that (a) the extent of success-related content varies across individuals' biographies, that (b) geographic regions in the U.S. differ in the average General-Life-Success of their residents, and that (c) these regional differences in General-Life-Success reliably predict the areas in which Trump's campaign in the 2016 presidential election was particularly successful. Conditional random forest analyses show that General-Life-Success outperforms well-established socioeconomic predictors of populism.

Cowgill, B., Dell'Acqua, F. & **Matz, S. C.** (Revising). Framing Algorithmic Fairness: How Fatalistic versus Counterfactual Rhetoric Influences the Adoption of Predictive Algorithms.

Algorithms have proven to be valuable decision-making aids in a broad variety of managerial settings. However, recent years have seen a growing concern about negative externalities of algorithmic decision-making that arise from algorithmic bias. In this paper, we study the effects of different rhetorical strategies concerned with inequality and discrimination on managers' willingness to adopt AI. Across two experiments ($N_{\text{Study1}} = 812$, and $N_{\text{Study2}} = 1,072$), we show that "fatalistic" algorithmic fairness rhetoric can backfire by leading managers to blindly reject biased algorithms, possibly in favor of even more biased human judgments. When exposed to an opinion editorial (OpEd) describing the nature and consequences of algorithmic bias, managers rejected the adoption of a somewhat biased algorithm even after being shown that the algorithm was, in fact, less biased than the current human status quo. In contrast, we find that "counterfactual" algorithmic fairness rhetoric can increase adoption rates by eliciting a more comparative evaluation of the algorithm's impact on inequality and discrimination. When exposed to an OpEd that highlighted the need to consider algorithmic bias in direct comparison to existing human biases, managers were more likely to choose the biased algorithm over the even more biased status quo. Together, our findings suggest that the framing of fairness considerations is critical in the quest for more equitable decision-making with the help of algorithms.

Teaching Experience

Courses Taught

Semester	Courses Taught
Summer 2023	B8510-001-MBA: Managerial Negotiations
Fall 2022	B8510-004-MBA: Managerial Negotiations B8510-005-MBA: Managerial Negotiations B6500-007-MBA: Lead: People, Teams and Organizations B6500-008-MBA: Lead: People, Teams and Organizations
Summer 2022	B8510-001-MBA: Managerial Negotiations
Spring 2022	B6500-001-MBA: Lead: People, Teams and Organizations
Fall 2021	B6500-007-MBA: Lead: People, Teams and Organizations B6500-008-MBA: Lead: People, Teams and Organizations B9515-001-PhD: (PhD) Proseminar
Summer 2021	B8510-001-MBA: Managerial Negotiations
Spring 2021	B9526-001-PhD: Big Data in Organizational Behavior
Fall 2020	B6500-003-MBA: Lead: People, Teams and Organizations B6500-004-MBA: Lead: People, Teams and Organizations
Summer 2020	B8510-001-MBA: Managerial Negotiations
Spring 2020	B8510-009-MBA: Managerial Negotiations B7510-300-EMBA: Managerial Negotiations
Fall 2019	B8510-003-MBA: Managerial Negotiations B8510-004-MBA: Managerial Negotiations
Spring 2019	B8510-004-MBA: Managerial Negotiations B8510-005-MBA: Managerial Negotiations B8510-006-MBA: Managerial Negotiations
Summer 2018	B8510-001-MBA: Managerial Negotiations B8510-002-MBA: Managerial Negotiations
Spring 2018	B8510-003-MBA: Managerial Negotiations B8510-004-MBA: Managerial Negotiations

Doctoral Dissertation Committee Service

Dissertation Chair or Co-chair

- Heinrich Peters, Management, Columbia University, Expected to Defend in 2023

Dissertation Committee Member

- Brandon Freiberg, Management, Columbia University, Expected to Defend in 2023
- Sumer Vaid, Communications, Stanford, Expected to Defend in 2023
- Aneesh Rai, ORD, Wharton, Defended in 2023
- Erica Bailey, Management, Columbia University, Defended in 2023
- Fabrizio Dell'Aquila, Management, Columbia University, Defended in 2022
- Federika Pinelli, Psychology, Columbia University, Defended in 2022
- Zaijia Liu, Management, Columbia University, Defended in 2022
- Yanou Ramon, Computer Science, University of Antwerp, Defended in 2022
- Andres Gvirts, Psychology, Cambridge University, Defended in 2022

Cases and Exercises Authored

Apple (2023) for Tech Strategy. Co-authors: Dan Wang and Jerry Kim

Frosty Pond (2020) for Managerial Negotiations. Co-authors: Maureen Devenny (MBA student)

Professional Activities

Editorial Work

Associate Editor Frontiers in Social Psychology

Ad-hoc Reviewer Management Science
Nature Human Behavior
Journal of Personality Research
Psychological Science
Journal of Personality and Social Psychology
European Journal of Personality
Personality and Individual Differences
Current Opinion in the Behavioral Sciences
Cyberpsychology, Behavior and Social Networking
PLoS ONE
Social Science Computer Review
Journal of Environmental Psychology
Journal of Consumer Psychology
Marketing Science

Affiliations Academy of Management (AOM)
Association for Psychological Science (APS)
Society for Personality and Social Psychology (SPSP)

Invited Talks and Keynotes (Selection)

Date	Title and Event
2022	<p>Hiring women into senior leadership positions is associated with a reduction in gender stereotypes in organizational language.</p> <ul style="list-style-type: none">• Seminar Talk, Chicago Booth <p>The Human Microscope: How big data offers a window into our psyche.</p> <ul style="list-style-type: none">• HBR, Turkey (virtual)• DGPS, Hildesheim Germany (Keynote).• Insurance Summit, University of St. Gallen, Switzerland (Keynote, virtual).• Assurex Global Conference. Dallas (Keynote).• Opening Ceremony of the Data Science Institute at the University of Amsterdam (Keynote, virtual) <p>Using Big Data to Study Individual Differences in Spending Behavior</p> <ul style="list-style-type: none">• Wharton Marketing Camp
2021	<p>Using Big Data as a Window into the Human Psyche.</p> <ul style="list-style-type: none">• Yseali Academy, Vietnam (virtual)• Seminar Talk, New Jersey Institute for Technology (virtual) <p>Using Big Data to Study Individual Differences in Spending Behavior</p> <ul style="list-style-type: none">• Seminar Talk, Yale School of Management <p>Personal Echo Chambers: Openness-to-experience is linked to higher levels of psychological interest diversity in large-scale behavioral data</p> <ul style="list-style-type: none">• Brownbag Talk, Stanford Communications• Brownbag Talk, Kellogg School of Management <p>What is Computational Social Science?</p> <ul style="list-style-type: none">• Panel with Sendhil Mullainathan and Duncan Watts, University of Massachusetts Amherst
2019	<p>The Future of Psychological Profiling.</p> <ul style="list-style-type: none">• Fast Forward Forum. Venice, Italy (Keynote).• Hogan Assessment, Tulsa. <p>What your digital footprints can reveal about you.</p> <ul style="list-style-type: none">• TEDx Chicago <p>Using Big Data to Study Individual Differences in Spending Behavior</p> <ul style="list-style-type: none">• Seminar Talk, Harvard Business School

- 2018 Using Big Data as a window into consumers' psychology.
- The Psychology of Technology Conference. Stanford, CA.
- Using Big Data to study individual differences and decision making in the wild.
- Seminar Talk, Kellogg Management & Organizations Seminar Series.
- The Future of the Digital Economy.
- Zurich Insurance Risk Summit, Berlin (Keynote).
- The Science Behind Cambridge Analytica.
- USI, Paris (Keynote).
- What we can learn about psychology from Big Data.
- Seminar Talk, University College Dublin, Blackrock.
- 2017 The Promises and Perils of Psychographic Targeting: A Look into the Future.
- President Lecture. Berlin School of Creative Leadership, Berlin (Keynote).
 - Berlin School of Creative Leadership, New York.
 - Trivago Academy, Düsseldorf (Keynote).
 - Microsoft EXPLAIN, Berlin (Keynote).
- Digital Psychometrics.
- European Commission Joint Research Center, Ispra.
 - Fraunhofer-Institute for Technik und Wirtschaftsinformatik, Kaiserslautern (Keynote)
 - Apache: Big Data North America 2017, Miami (Keynote).
- Digital Happiness
- Sogeti Summit, Chicago (Keynote).
- How Money Can Buy You Happiness
- TEDx, University Hasselt, Belgium
- 2016 Using Big Data and Psychological Theory in Customer-Centric Marketing.
- Marketing Seminar, ESADE Business School, Barcelona
 - Marketing Seminar, London Business School, London
 - Marketing Seminar, Columbia Business School, New York.
- Psychology gone wild: A Big Data approach to psychological research.
- Social and Personality Psychology Seminar, University of Texas, Austin.
- Big Data Assessment: Predicting Psychological Traits from Digital Footprints.
- VII Brazilian Congress for Psychological Assessment, Sao Paulo (Keynote).
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- 2015 Using Big Data in personality-customised advertising.
- DataIQ Summit, London (Keynote).
 - Seminar Talk, World Wellbeing Project Group, UPenn

Conferences organized

SPSP Summer Forum on Big Data in St. Louis, 2019.

Media Outreach

Film, TV, and Radio

- „Gambling, literally, on climate change“. 2023. Interview with NPR’s [The Indicator](#)
- [“Made to Measure”](#) feature documentary. The documentary recreates the life of a young woman based on her Google searches and interviews experts about the power of data and predictive technologies. The film has been nominated for the prestigious PRIX EUROPA award. The documentary will also be submitted to the big US film festivals (Tribeca and Sundance) and likely appear on one of the big streaming platforms (e.g., Netflix, Hulu).
- [“Mutually Assured Destruction”](#) documentary. The documentary which is currently being produced sheds light on the nuclear launch protocols across the globe and discusses the possibility of adding machine intelligence to the decision-making process.
- Talk show on SRF (Swiss TV) on the topic of "Digital Manipulation: Do Facebook and Co. pose a threat to our democracy?" ([here](#)).
- German TV coverage on the predictive power of Facebook Likes ([here](#) and [here](#)).
- Guest on several radio shows including BBC radio 4 (“You and Yours” and “All in the Mind”), BBC Radio Cambridgeshire, BYU radio.

Podcasts (Selection)

- Behavioral Grooves: “Share, Like, Comment: Sandra Matz exposes the truth behind your digital footprint”
- Columbia BizCast: “Professor Sandra Matz: Creating Value Through Big Data”
- Program Life: “How we are all being tracked by AI and Finding happiness in life”
- Mobile Dev Memo: “Algorithms, Ad Targeting, and Democracy – a Conversation with Dr. Sandra Matz”

Media Mentions (Selection)

- “Why deleting something from the internet is ‘almost impossible’”. 2022. CNN Business
- “The Benefits of Being Yourself Online”. 2021. Scientific American
- “How You Feel Depends on Where You Are: New research uses GPS data from cell phones to draw connections between people’s location and their mood”. 2020. The Economist
- “Social Media Braces for a Deluge of Voter Misinformation”. 2020. Bloomberg News
- “The Internet Knows You Better Than Your Spouse Does”. 2019. Scientific American
- “Your spending data may reveal aspects of your personality”. 2019. Science Daily

- “Forget Your Crystal Ball: How Can Leaders Really Prepare For The Future?”. 2019. Forbes
- “Do Nice People Fare Worse Financially?” 2018. Forbes
- “Nice Guys Really Do Finish Last—Agreeable People More Likely to Be Broke”. 2018. Newsweek
- “People With This Personality Trait Tend to Be More Financially Successful, Study Finds”. 2018. Inc
- “One Facebook ‘like’ is all it takes to target adverts, academics find”. 2017. Guardian
- “This Is How Much Marketers Know About You Based on One Facebook Like”. 2017. Vice
- “Advertisers can target you psychologically based on a single Facebook like, study finds”. 2017. Business Insider
- “Scientists Can Predict Your Personality Based on Just One Facebook Like”. 2017. The Observer
- “The Data That Turned the World Upside Down”. Vice. 2017
- “Creating Ads We’d Be Glad to See”. 2016. Psychology Today
- “Money can buy happiness — if you know how to use it. 2016”. The Washington Post
- “Money does buy happiness, but only if.... 2016”. CNBC
- “Money can buy happiness - if you know how to use it”. Chicago Tribune
- “Can money buy you happiness? It depends on how you spend it”. 2016. World Economic Forum