Beautiful Minds: Marketing in the Age of Neurodiversity

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Neurodiversity refers to natural variation in human cognitive functioning. Just as *biodiversity* is essential for a robust and resilient ecological system, *neurodiversity* enriches societal systems by contributing a range of perspectives, skills, and ways of thinking. When individuals diverge from dominant societal standards of 'normal' neurocognitive functioning, they're neurodivergent, which in itself is neither automatically disabling nor a superpower, but value neutral. Differences in cognitive function do not discriminate by age, gender or race but arise from the combination of genetics and the environment. Cognitive function is affected by many things including stress, drugs and alcohol, the sequelae of diseases like stroke, cancer, diabetes, COVID-19, or conditions like grief and menopause – although neurodiversity diagnoses are mostly associated with neurodevelopmental disorders, e.g., ADHD, autism, dyslexia, dyscalculia, and dyspraxia (American Psychiatric Association, 2023). However, the strengths-based neurodiversity paradigm challenges the idea that neurological differences are mental disorders to be treated or cured (Walker, 2021). Given that at least 15% of the population are estimated to be neurodivergent (Gidziela *et al.*, 2023), differences in how brains process information should instead be valued and celebrated.

Recognizing and supporting consumers with different neurotypes can bring about unique marketplace solutions that benefit everyone. Consider, for example, sensory-friendly clothing (McKinney and Eike, 2023), stimulation toys (Roche, Back and Van Herwegen, 2024) and adaptive built environments (Maslin, 2022), all designed for neurodivergent minds but advantageous for neurotypicals as well. Facilitating the well-being of neurodivergent consumers (Go Jefferies and Ahmed, 2022) and employees (Austin and Pisano, 2017) can help companies gain competitive advantage. Unfortunately, neurodivergent consumers are systematically marginalized in the marketplace because interactions can be more difficult compared to neurotypical consumers (Go Jefferies, 2023). Differences in communication styles can lead to stigmatization (Milton, Gurbuz and López, 2022; Turnock, Langley and Jones, 2022), while the billion-dollar industry built around 'treating' neurodivergent consumers has been accused of commodifying neurodiversity for profit (Timimi, 2010; Broderick, 2022; Chapman, 2023).

Drawing on the broader diversity discourse in marketing (DeBerry-Spence *et al.*, 2013), which calls for the recognition, inclusion, and celebration of all differences among people, in this track we propose a radical reexamination of neurodiversity within the marketplace to develop a model that respects neurological differences as a social identity similar to ethnicity, gender, or sexual orientation. Our goals are twofold: (1) to develop essays for potential inclusion in a proposed Routledge book, *Neurodiversity and the Marketplace*; and (2) to produce practical guidelines for marketing researchers and practitioners on how to ethically design for neurodiversity. The latter may take the form of a handbook, website or journal article. The marketing literature on neurodiversity is scant; as such there are many potential directions that could be explored. Some examples are provided in Appendix 1.

Who should apply? Anyone interested in mental health, cognitive functioning, biopsychosocial models of disease, stigma, disability, diversity or inclusive marketing practices will find this session valuable. We seek a wide variety of track applicants, including academics from different disciplines (e.g., public policy, marketing, psychology, and education) and non-academics (e.g., neurodiversity activists, industry professionals, advocacy groups). We welcome applications from doctoral students and experienced professionals alike. Experience studying, supporting, or representing suspected or diagnosed neurodivergent people is welcomed but not required. Neurodiverse applicants are especially welcome.

How to apply? Please include (1) a copy of your CV and (2) a 500-word statement outlining what neurodiversity might mean for marketing and/or consumer well-being within your area of expertise and identify key research priorities (see Appendix 1; additional ideas are welcome) and (3) a brief description of your experience (if any) with neurodiversity (for example, you may yourself be neurodivergent or have a child with ADHD).

Appendix 1: Marketing in the Age of Neurodiversity Potential Research Areas

Exclusion of neurodiverse consumers

By dint of occupying the extremes of a normal distribution of cognitive function, the experiences and behaviors of neurodivergent consumers have been systematically ignored (Javor *et al.*, 2023). What are the ethical and epistemic implications of this exclusion? What does it mean for the validity of statistical models of consumer behavior? How can researchers better include the experiences of neurodiverse consumers?

Consumption behavior of neurodiverse consumers

Marketing research into neurodivergent consumption behavior is limited but suggests important differences compared to neurotypicals. For example, neurodivergent consumers have a lower tendency to try new products or services (Baas and van Raaij, 2010), and find it harder to quit smoking (Mitchell *et al.*, 2019). Given that differences in cognitive functioning exist on a continuum, understanding extreme consumption experiences can help improve the marketplace for all. What consumption-related areas are important to investigate (e.g., foods, medications (stimulants, alcohol, drugs), addiction, gambling, financial services, housing, health care, social platforms, transportation).

Designing neurodiversity-inclusive services

In the social model of disability, functional impairment emerges as a result of barriers in society, rather than a person's impairment or difference. For example, communication within similar neurotypes is more effective than between neurotypes (Williams, Wharton and Jagoe, 2021). Called the double empathy problem (Milton, Gurbuz and López, 2022), this suggests service encounters may experience unforeseen challenges if they are not designed to appeal to different neurotypes. Neurodivergent consumers may benefit from different information design (Wilkinson and Madel, 2019). How can marketing design to better accommodate neurodiverse consumers, both online and offline? How can the service environment be more enabling, rather than disabling (e.g., store atmospherics, lighting, smell, touch, noise, space, signage & way-finding)? How can brands be more inclusive in their language and vocabulary (verbal, non-verbal, visual image, intonation, frequency, clarity, etc.)?

Exploitation of neurodiverse consumers

Critical neurodiversity research frequently demonizes the exploitative role of marketing that commodifies neurodivergence rather than respecting human rights (Broderick, 2022; Chapman, 2023). Marketers may be accused of engaging in "neurodiversity light," using neurodiversity as a buzzword to expand a commercial market. For example, innovations such as fidget spinners are marketed as interventions with insufficient testing (Cihon *et al.*, 2020). How can marketing avoid taking advantage of neurodivergent consumers? What are the philosophical and ethical considerations when designing neuro-inclusive experiences? Neurodivergent consumers are not a homogenous group (Go Jefferies and Ahmed, 2022). How do marketers account for segments with different communication and learning styles, educational needs, sensory perception and processing differences, distractibility?

Consequences for neurodiverse consumers

How is the neurodiversity paradigm affecting stigma, culture, shaming, normalization, bullying, trolling, isolation, intimate, familial and social relationships, comorbidities, and opportunities for well-being?

Innovation in neurodiversity treatment

How are businesses marketing products and services for and designed/produced/run by neurodivergent people engaging in alternative market formation? What effects do Universal Design (products, communications, servicescapes, customer journeys), Assistive technology: Al, companions, chatbots, LLM lexicons, automated companions, Enhancement and Computer-Brain-Interface device/implant development, Biohacking (LSD, adaptogens), Stim toys, Focus/Concentration, Spatial computing, Masking, Social media, (De)Medicalization, complex conditions, application of APA DSM treatment, cure, classification and coverage have on consumer well-being?

Appendix 2: Track Activity Outline

Pre Conference	
Nov 15, 2024	Deadline for participant applications
Dec 31, 2024	Track chair submit participant application reviews to conference chairs
Jan 15, 2025	Notification to conference applicants
Jan 30, 2025	Introductory Zoom meeting. Personal experience with neurodiversity. Key readings shared.
Feb - May 2025	Establish a digital collaboration board and monthly Zoom meetings. Review insights from readings and outline relationships to own research. Identify potential avenues for research. Prepare literature review.
During Conference	
Jun 12, 2025	Participant arrival.
Jun 13, 2025	9-12 Dialogical working session: review proposed avenues of research. 12-2 Lunch. 2-5 Dialogical working session: develop integrated framework/model. 7-9 Team Dinner.
Jun 14, 2025	9-12 Dialogical working session: refine integrated framework/model. 2-5 Museum visit 7-9 Conference Dinner (on campus).
Jun 15, 2025	9-12 Dialogical working session: develop post conference plan.
Post Conference	
Aug 2025	Propose chapter titles for Routledge book on Neurodiversity and Marketing
Dec 2025	Produce guide (handbook/website) for marketing researchers and practitioners on how to design ethically for neurodiversity.
Apr 2026	Finished book chapters / journal articles.

References

- American Psychiatric Association (2023) *Diagnostic and Statistical Manual of Mental Disorders (DSM-5-TR)*. Washington, DC: American Psychiatric Association.
- Austin, R.D. and Pisano, G.P. (2017) 'Neurodiversity as a Competitive Advantage', *Harvard Business Review*, May(1). Available at: https://hbr.org/2017/05/neurodiversity-as-a-competitive-advantage.
- Baas, T.H. and van Raaij, W.F. (2010) "Familiar or risky": The Asperger syndrome affects exploratory consumer behaviour', *Journal of Economic Psychology*, 31(3), pp. 471–477. Available at: https://doi.org/10.1016/j.joep.2010.02.002.
- Broderick, A. (2022) *The Autism Industrial Complex: How Branding, Marketing, and Capital Investment Turned Autism into Big Business*. 978-1-975501-86-0.
- Chapman, R. (2023) Empire of Normality: Neurodiversity and Capitalism. London: Pluto Press.
- Cihon, J.H. et al. (2020) 'Fad Treatments in Autism Intervention: An Evaluation of Fidget Spinners', Education and Training in Autism and Developmental Disabilities, 55(4), pp. 466–475.
- DeBerry-Spence, B. *et al.* (2013) 'Toward Marketplace Diversity: A Multimeasure, Multidimensional Study of the *Journal of Public Policy & Marketing*', *Journal of Public Policy & Marketing*, 32(1_suppl), pp. 6–15. Available at: https://doi.org/10.1509/jppm.12.042.
- Gidziela, A. *et al.* (2023) 'A meta-analysis of genetic effects associated with neurodevelopmental disorders and co-occurring conditions', *Nature Human Behaviour*, 7(4), pp. 642–656. Available at: https://doi.org/10.1038/s41562-023-01530-y.
- Go Jefferies, J. (2023) 'An Arendtian perspective on responsibilized heroes: Why marketing needs a new model of heroic action', *Marketing Theory*, 23(1), pp. 33–57. Available at: https://doi.org/10.1177/14705931221139318.
- Go Jefferies, J. and Ahmed, W. (2022) 'Marketing #neurodiversity for well-being', *Journal of Consumer Marketing*, 39(6), pp. 632–648. Available at: https://doi.org/10.1108/JCM-03-2021-4520.
- Javor, A. *et al.* (2023) 'Vulnerable consumers: marketing research needs to pay more attention to the brain health of consumers', *Marketing Letters*, 34(2), pp. 337–342. Available at: https://doi.org/10.1007/s11002-022-09654-3.
- Maslin, S. (2022) *Designing mind-friendly environments: design and architecture for everyone*. London Philadelphia: Jessica Kingsley Publishers.
- McKinney, E. and Eike, R. (2023) *Adaptive Apparel Design*. Iowa State University Digital Press. Available at: https://doi.org/10.31274/isudp.2023.143.
- Milton, D., Gurbuz, E. and López, B. (2022) 'The "double empathy problem": Ten years on', *Autism*, 26(8), pp. 1901–1903. Available at: https://doi.org/10.1177/13623613221129123.
- Mitchell, J.T. *et al.* (2019) 'Cigarette Smoking Progression Among Young Adults Diagnosed With ADHD in Childhood: A 16-year Longitudinal Study of Children With and Without ADHD', *Nicotine & Tobacco Research*, 21(5), pp. 638–647. Available at: https://doi.org/10.1093/ntr/nty045.
- Roche, M.A., Back, E. and Van Herwegen, J. (2024) 'Parental perspectives on the use of fidget toys and sensory-seeking profiles in autistic and neurotypical children', *Current Psychology*, 43(17), pp. 15872–15882. Available at: https://doi.org/10.1007/s12144-023-05483-3.
- Timimi, S. (2010) 'The McDonaldization of Childhood: Children's Mental Health in Neo-liberal Market Cultures', *Transcultural psychiatry*, 47, pp. 686–706. Available at: https://doi.org/10.1177/1363461510381158.
- Turnock, A., Langley, K. and Jones, C.R.G. (2022) 'Understanding Stigma in Autism: A Narrative Review and Theoretical Model', *Autism in Adulthood*, 4(1), pp. 76–91. Available at: https://doi.org/10.1089/aut.2021.0005.
- Walker, N. (2021) *Neuroqueer heresies: notes on the neurodiversity paradigm, autistic empowerment, and postnormal possibilities.* Fort Worth: Autonomous Press.
- Wilkinson, K.M. and Madel, M. (2019) 'Eye Tracking Measures Reveal How Changes in the Design of Displays for Augmentative and Alternative Communication Influence Visual Search in Individuals With Down Syndrome or Autism Spectrum Disorder', *American Journal of Speech-Language Pathology*, 28(4), pp. 1649–1658. Available at: https://doi.org/10.1044/2019_AJSLP-19-0006.
- Williams, G.L., Wharton, T. and Jagoe, C. (2021) 'Mutual (Mis)understanding: Reframing Autistic Pragmatic "Impairments" Using Relevance Theory', *Frontiers in Psychology*, 12, p. 616664. Available at: https://doi.org/10.3389/fpsyg.2021.616664.

Appendix 2: Track Co-Chair Biographies & Relevant Publications

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Josephine's research focuses on service innovation and social change. Her work has been published in top journals including *Journal of Service Research, Journal of Public Policy and Marketing, Journal of Business Research, Journal of Services Marketing, Marketing Theory,* and *Journal of Consumer Marketing*. A regular participant in TCR Conferences since 2015 (Transforming Patient Experience, 2015; 2017; Digital technology and eTCR, 2019; Consumer Mental Well-being, 2023, she served as a Chair on the Family Caregiver Well-being track in 2021. Recently she co-Lead the interdisciplinary Neurodiversity Think Tank at MPPC 2024, which included representatives from government, advocacy groups, and nonprofits, activists as well as consumer behavior researchers.

Relevant publications

- Novakovic, K; Thumbarathy, D; Peeters, M; Geoghegan, M; Go Jefferies, J; Hicks, C; Manika, D; Dai, S (2023),
 'Zero-waste circular economy of plastic packaging: The bottlenecks and a way forward.' Sustainable Materials and Technologies. 38, e00735. https://doi.org/10.1016/j.susmat.2023.e00735
- **Go Jefferies, J.** 'An Arendtian Perspective on Responsibilized Heroes: Why marketing needs a new model of heroic action.' (2022), *Marketing Theory*. https://doi.org/10.1177/14705931221139318
- Go Jefferies, J. and Ahmed, W., (2022), 'Marketing #neurodiversity'. Special Issue on Mental Health and the Marketplace in the *Journal of Consumer Marketing*. Vol. 39 No. 6, pp. 632-648. https://doi.org/10.1108/JCM-03-2021-4520
- Bowyer, Holt, Go Jefferies, Wilson, Kirk & Smeddinck (2022), 'Human-GDPR Interaction: Practical Experiences of Accessing Personal Data'. CHI'22, April 29-May 05, 2022. New Orleans, LA. Best Paper Honorable Mention. https://doi.org/10.1145/3491102.3501947
- Azzari, C. Anderson, L., Mende, M., Go Jefferies, J., Downey, H., Ostrom, A. and Spanjol, J. (2021) 'Consumers on the Job: Contextualization Crafting in Expert Services'. *Journal of Service Research*. https://doi.org/10.1177/10946705211012474
- Daskalopoulou, A., Go Jefferies, J. and Skandalis, A. (2020), "Transforming technology-mediated healthcare services through strategic sense-giving," *Journal of Services Marketing*. https://doi.org/10.1108/JSM-11-2019-0452
- Gallan, A. and **Go Jefferies, J.** (2020), Chapter 2.2 'Value Cocreation and its Meaning for Customers'. Bridges, E. and Fowler, K. (Eds). In *Routledge Companion Volume on Service Insights and Ideas*.
- Go Jefferies, J., Bishop, S. and Hibbert, S.(2019), 'Customer boundary work to navigate institutional
 arrangements around service interactions: exploring the case of telehealth,' *Journal of Business Research*.
 Special issue on Bringing institutional theory to marketing. https://doi.org/10.1016/j.jbusres.2019.03.052
- Gallan, A., McColl-Kennedy, J., Barakshina, T., Figueiredo, B., Go Jefferies, J., Gollnhofer, J., Hibbert, S., Luca, N., Roy, S., Spanjol, J., Winklhofer, H. (2019), 'Transforming Community Well-Being Through Patients' Lived Experiences. *Journal of Business Research*. Special issue on Transformative Consumer Research.
- **Go Jefferies, J.**, Bishop, S. and Hibbert, S. (2019), 'Service innovation through resource integration: an empirical examination of co-created value using telehealth services,' *Public Policy and Administration*. Special issue on Co-production. https://doi.org/10.1177/0952076718822715
- Anderson, L., Spanjol, J., Go Jefferies, J. (Lead Authors), Baker, C.N., Bone, S., Downey, H., Mende, M., Ostrom, A. and Rapp, J. (2016), 'Responsibility and Well-being: Resource Integration under Responsibilization in Expert Services'. *Journal of Public Policy & Marketing* Special Issue on Transformative Consumer Research. https://doi.org/10.1509/jppm.15.140

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Jane Machin, MFA, Ph.D. earned her doctorate in Marketing at The Wharton School, University of Pennsylvania. Her award winning research examines the intersection of marketing, mental health and consumer behavior. A regular participant in TCR conferences since 2009, Jane has successfully co-chaired three prior TCR conference sessions on mental health and marketing (2017, 2021, 2023) and has published on the subject in top journals including *Journal of Public Policy and Marketing*, *Psychology and Marketing*, *Journal of Business Research*, and *Journal of Consumer Affairs*. She has served as co-guest editor for a special issue of

the Journal of Consumer Marketing on mental illness and marketing.

Relevant Publications

- Machin, Jane E., and Rutelione A., (forthcoming) "Social Innovation, Mental Health and the Metaverse," in L. Steinfeld, D. Littlewood, I. Garnelo-Gomez, and G. Ciambotti (eds), The Elgar Companion to Social Innovation and the UN Sustainable Development Goals.
- Farrell, J. R., Machin, Jane E., Mirabito, A., Drenten, J., Chan-Park, Christina, Crosby, E., Ross-Adkins, N., (2024)
 "Mental Illness and Marketing: A 50-Year Scoping Review and Future Research Framework," Psychology and Marketing, https://doi.org/10.1002/mar.22070.
- Machin, Jane E., Mirabito, A., Nations Azzari, C., Ross Adkins, N., Crosby, E, (2024) "Disadvantaged Consumers,
 Market Access, and Consumer Well-being" in Fatih Sonmez (ed), Consumer Psychological Wellbeing, Springer
 International Series on Consumer Science, pp69-90.
- Machin, Jane E., "Leveraging Design Thinking to Improve College Student Mental Health," in K. Straker and C. Wrigley (Eds.) Research Handbook on Design Thinking: Interdisciplinary Perspectives, 2023, Edward Elgar Publishing, pp 142-164.
- Machin, Jane E., Mirabito, A., Adkins, N., Crosby, B, Farrell, J. R., (2022) "Taming Complex Problems Using the Problem Solution Impact (PSI) Research Process Model", Journal of Consumer Affairs, https://doi.org/10.1111/joca.12469
- Machin, Jane E. Brister, T., Bossarte, R., Drenten, J., Hill, R., Holland, D., Martik, M., Mulder, M., Viswanathan, M., Yeh, M., Mirabito, A., Farrell, J., Crosby, E., Adkins, N., (2022) "Conversations about Conducting Marketing Research in Mental Health," Journal of Consumer Marketing, https://doi.org/10.1108/JCM-02-2022-5212
- Mirabito, A., Adkins, N., Crosby, B, Farrell, J. R., and **Machin, Jane E** "Mental Health and the Marketplace: A Research Agenda" (2022), Journal of Consumer Marketing, https://doi.org/10.1108/JCM-09-2022-056
- Machin, Jane E., Adkins, N. R., Crosby, E., Farrell, J. R., & Mirabito, A. M (2019). "The marketplace, mental well-being, and me: Exploring self-efficacy, self-esteem, and self-compassion in consumer coping." Journal of Business Research 100 (C), 410-420 https://doi.org/10.1016/j.jbusres.2018.12.028
- Mirabito, A., Otnes, C., Crosby, E., Wooten, D., Machin, Jane E., Pullig, C., Adkins, N., Dunnett, S., Hamilton, K., Thomas, K., Yeh, M., Davis, C., Gollnhofer, J., Grover, A., Matias, J., Mitchell (2016) "The (de)Stigma Turbine: A New Model to Understand Stigma and the Marketplace," Journal of Public Policy and Marketing. 35.2 (2016) 170-184. Lead Article. https://www.istor.org/stable/44164850