

EMERALD STUDIES *in* WORKPLACE NEURODIVERSITY

# Generation A

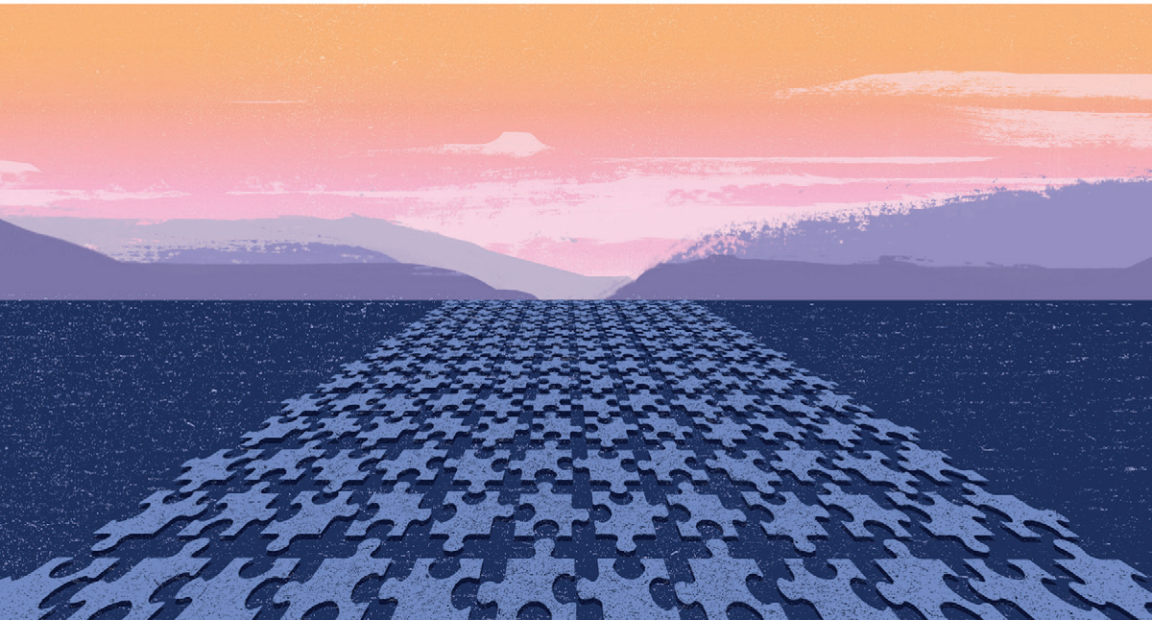
*Research on Autism in the Workplace*



Editors

CRISTINA M. GIANNANTONIO, PH.D.

AMY E. HURLEY-HANSON, PH.D.



# Generation A

# **Emerald Studies in Workplace Neurodiversity**

Series Editors: Cristina M. Giannantonio and Amy E. Hurley-Hanson

This important series is designed to make a significant contribution to the development of research on neurodiversity in the workplace. Despite increasing recognition of neurodiversity as a competitive advantage (Austin & Pisano, 2017), little is known about the work experiences and career outcomes of neurodiverse individuals. Neurodiversity is reported to include autism spectrum disorder, dyspraxia, dyslexia, attention deficit hyperactivity disorder, dyscalculia, Tourette's syndrome, and other neurological differences. This series will include books, monographs, edited volumes, and practitioner handbooks examining the key individual, organizational, and societal issues surrounding neurodiversity at work, the challenges involved in finding and maintaining employment for neurodiverse individuals, and the need to understand which best practices will lead to positive work, career, and life outcomes for neurodiverse individuals.

The series, *Emerald Studies in Workplace Neurodiversity*, will synthesize critical thinking around the strategic issues associated with hiring and integrating neurodiverse individuals into the workplace. Titles in the series will provide current research in this area. This series will capture contemporary research and practice from a diverse range of international scholars, practitioners, and educators. The series will help to build connections between research and neurodiversity in the workplace.

The series will also explore the role of organizations, educational institutions, advocacy groups, and the public sector in preparing neurodiverse individuals for employment. It will also explore best practices being utilized in the employment process and how these may be adapted to address future challenges. This is a series that is relevant for both academics and practitioners, as it aims to further the research agenda on the topic and influence the ability of organizations to successfully hire neurodiverse individuals. While little is known about the work experiences and career outcomes of these individuals, the individual, organizational, and societal issues associated with neurodiversity in the workplace underscore the importance of this topic.

More information about this series at: <https://books.emeraldinsight.com/page/series-detail/Emerald-Studies-in-Workplace-Neurodiversity/>

# **Generation A: Research on Autism in the Workplace**

EDITED BY

**CRISTINA M. GIANNANTONIO**

*Chapman University, USA*

And

**AMY E. HURLEY-HANSON**

*Chapman University, USA*



United Kingdom – North America – Japan – India – Malaysia – China

Emerald Publishing Limited  
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2022

Copyright © 2022 by Emerald Publishing Limited

**Reprints and permissions service**

Contact: [permissions@emeraldinsight.com](mailto:permissions@emeraldinsight.com)

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

**British Library Cataloguing in Publication Data**

A catalogue record for this book is available from the British Library

ISBN: 978-1-80071-257-7 (Print)

ISBN: 978-1-80071-256-0 (Online)

ISBN: 978-1-80071-258-4 (Epub)



**ISOQAR**  
REGISTERED

Certificate Number 1985  
ISO 14001

ISOQAR certified  
Management System,  
awarded to Emerald  
for adherence to  
Environmental  
standard  
ISO 14001:2004.



INVESTOR IN PEOPLE

I never did a day's work in my life, it was all fun.  
Thomas Edison

*This book is dedicated to Generation A.  
May they find work as fulfilling, fascinating, and fun as we have.*

This page intentionally left blank

# Contents

About the Authors	<i>ix</i>
About the Editors	<i>xiii</i>
Preface	<i>xv</i>
Acknowledgments	<i>xix</i>

<b>Generation A: Research on Autism in the Workplace</b>	<b>1</b>
<i>Cristina M. Giannantonio and Amy E. Hurley-Hanson</i>	

## **Part I Individual and Organizational Interventions to Help Support Generation A in the Workplace**

<b>Chapter 1 Workplace Training for Employees with Autism Spectrum Disorder</b>	<b>7</b>
<i>Karen R. Johnson and Kasha Williams</i>	

<b>Chapter 2 Organizational Knowledge Creation: The Autism Enigma</b>	<b>19</b>
<i>Jillian Saylor</i>	

<b>Chapter 3 Fit and Work Opportunities for Individuals with Autism Spectrum Disorder: Individual and Organizational Recommendations for Opening the Workplace</b>	<b>31</b>
<i>Nadia Bhuiyan, Margaret Young and Daniel J. Svyantek</i>	

**Part II The Legal and Functional Environment and Research  
on Employing Generation A**

<b>Chapter 4 Investigating Recommended Jobs for Generation A Individuals With High-functioning Autism to Enhance Person-job Fit</b>	<b>69</b>
<i>Gundars Kaupins</i>	
<b>Chapter 5 The Failures and Promise of the Workforce Innovation and Opportunity Act</b>	<b>93</b>
<i>Tara Cunningham</i>	
<b>Chapter 6 Evaluating Data for Assessing Postsecondary Schooling and Career Outcomes of Generation A</b>	<b>111</b>
<i>Melissa J. Bjelland and Susanne M. Bruyère</i>	
<b>Chapter 7 Creating Opportunity through Workforce Development Innovation</b>	<b>137</b>
<i>Meaghan Timko</i>	
Index	151

## About the Authors

**Nadia Bhuiyan**, PhD, is an Assistant Clinical Professor in the Department of Psychological Sciences at Auburn University. Nadia is the Clinic Director for the Auburn University Psychological Services Center, a training clinic for masters and doctoral level graduate students enrolled in the clinical psychology and behavioral analysis programs. She is a licensed Clinical Psychologist and provides supervised training in the delivery of evidence-based clinical services for individuals across the lifespan. She has extensive experience with the assessment of autism spectrum disorder and related neurodevelopmental disorders. She received her PhD in Clinical and Health Psychology from the University of Florida. After completing an internship in clinical child and pediatric psychology at the University of Florida Health Science Center, she completed a postdoctoral fellowship at the Emory University School of Medicine within the Clinical Assessments and Diagnostics team at Marcus Autism Center and Children's Healthcare of Atlanta.

**Melissa J. Bjelland**, PhD, is a Research Associate at the Yang-Tan Institute on Employment and Disability at Cornell University ILR School, USA. Dr. Bjelland specializes in the fields of labor economics, health economics, and econometrics with a focus upon advancing knowledge of the educational, employment, and service participation experiences of individuals with disabilities. Using a variety of national survey and administrative datasets, she manages the creation of cross-sectional and longitudinal research files, performs empirical analyses, and authors research papers and policy briefs describing her results.

**Susanne M. Bruyère**, PhD, is Professor of Disability Studies and Director of the Yang-Tan Institute on Employment and Disability at Cornell University ILR School, USA. Dr. Bruyère serves as the Yang-Tan Institute's administrative and strategic lead, and as the PI/Co-PI of numerous research, dissemination, and technical assistance efforts focused on employment and disability policy and effective workplace practices for people with disabilities. She is currently the PI and Project Director of the National Policy, Research, and Technical Assistance Center on Employment of People with Disabilities funded by the US Department of Labor Office of Disability Employment Policy. Dr. Bruyère is the author/coauthor of four books and over 120 peer-reviewed articles and book chapters on workplace disability inclusion and related topics.

**Tara Cunningham** is the Founding CEO of Beyond-Impact, an Ashoka Fellow, and an internationally recognized, award-winning, neurodivergent CEO and

Social Entrepreneur and Management Consultant. Her work spans disability inclusion from early intervention to financial inclusion and independence through integrated, paid employment. Over the past 20 years, Tara has been appointed to various nonprofit, SME, and governmental boards, advised nonprofits, corporate social responsibility programs, social enterprises, government agencies, the European Commission, politicians, and philanthropic foundations throughout the United States and Europe on how to create sustainable social impact and recently cofounded the Grunin Center for Law and Social Entrepreneurship at NYU School of Law. When she was CEO of Specialisterne USA, she led the autism@work and neurodiversity@work programs at Salesforce, Goldman Sachs, TDBank, Deloitte, PwC, P&G, IPG Mediabrand/Kinesso, AT&T, and MITRE. She is also a keynote speaker, moderator, and expert panelist worldwide, including Moderator at United Nations World Autism Awareness Day.

**Karen R. Johnson**, is an Associate Professor in the Department of Learning Technologies, University of North Texas, USA. Her research focuses on workplace training, learning, and performance improvement. In her research, she advocates for minority/underrepresented populations often excluded from opportunity in the workplace, including emphasis on the investigation of dynamic organization development interventions that aid the transition, retention, and work outcomes of individuals with autism to the workforce. She is a 2020 recipient of the Academy of Human Resource Development Cutting Edge Award for a paper on *Success Strategies for Employees with Autism Spectrum Disorder*. She graduated from the University of the West Indies with a degree in Psychology and earned both an MA and a PhD in Work and Human Resource Education from the University of Minnesota.

**Gundars Kaupins**, PhD, is a Professor at Boise State University, USA. He has a PhD in Human Resource Management from the University of Iowa and is a Society for Human Resource Management – Senior Certified Professional and Senior Professional in Human Resources (SPHR). His publications include five books and over 80 journal articles on autism in the workplace, ethics, design thinking, human resource management, and ethics. His autism-related journal articles are on the employment and evaluation of individuals on the autism spectrum in the teaching profession. He is a board member of a nonprofit that supports organizations involved with autism (Idaho Nonprofit Center) and a nonprofit that directly trains individuals on the spectrum (AquAbility)

**Jillian Saylor**, PhD, Washington State University, USA. My research in Neurodiversity engages social justice, critical pedagogy, critical race, feminism, and Dialogical storytelling Theatrics. I investigate Autism and employment, institutional theory, legitimacy, leadership, and organizational change. The question is how do managers incorporate individual differences into the day-to-day interactions of working towards the organizational goals? I have been investigating Autism for a decade and I have developed an approach of organizational change that integrates organizational theories and dialogical storytelling theatrics that

may create a space for all individuals to be different but reach a consensus towards organizational ends.

**Daniel J. Svyantek**, PhD, received his degree from the University of Houston. He was a faculty member in the Industrial/Organizational (I-O) Psychology PhD program at The University of Akron from 1987 to 2003. He is currently a Full Professor in the Psychology Department of Auburn University. He has published in journals such as the *Journal of Applied Psychology*, *Journal of Vocational Behavior*, *Journal of Applied Behavioral Sciences*, and *Human Relations*. He has served as Editor of the journal, *Organizational Analysis* and is currently Series Editor for the series, *Research in Organizational Sciences*. His research interest areas include person–organization fit issues. He has written on the implications of person–organization fit for organizations and members of diverse groups entering the adult workforce. In addition, he is interested in the role of organizational culture as the context for the performance and quality of working life for employees in organizations.

**Meaghan Timko**, MS, is an experienced Board Certified Behavior Analyst, entrepreneur, and innovator who owns Parallel, an international consulting agency focused on strategic transition planning and neurodiverse workforce development. She holds a BS in Psychology and certificate in Performance Management from Florida State University and an MS in Applied Behavior Analysis from Florida Institute of Technology. Driven by a desire to create meaningful change, she employs a systems approach to affecting both ends of the opportunity pipeline. As an advocate for a more inclusive society, her goals include educating the comprehensive web of people who influence avenues of human development on the benefits of neurodiversity. In addition to her work, Meaghan has been recognized by organizations such as Autism Speaks, the Cobb County, Georgia Chamber of Commerce, and LiveSafe Resources in Marietta, Georgia, for her leadership and contributions to the Atlanta community.

**Kasha Williams**, MS, is a doctoral student in Learning Technologies, University of North Texas. She obtained her undergrad degree and MBA from Florida A&M University, with a concentration in Accounting. Her research interests are workplace learning analytics and quantitative methods of research. Kasha's research has been presented at conferences including the 32nd Annual Society for Information Technology and Teacher Education (SITE) Conference and the 14th Annual Learning Ideas Conference. Her career background includes both industry and academic experiences. She has “Big 4” auditing experience and worked as a Senior Accountant in the oil and gas industry before moving on to teach Accounting and Business Technology courses.

**Margaret Young**, MS, is a PhD student in Clinical Psychology at Auburn University. She completed her undergraduate education at the University of Dayton in 2016 and received her MS in Psychology from Auburn University in 2017. She is currently completing her PhD at Auburn University and has plans to attend the University of Louisville predoctoral internship in Pediatric Psychology for her final year of predoctoral training. Clinically, she has interests in working with

pediatric populations, including: hematology/oncology, solid organ transplant, and within consultation/liaison services. Maggie has been trained in the administration of neurodevelopmental assessment instruments, including the Autism Diagnostic Observation Schedule (ADOS-2). She has research interests in psychosocial outcomes related to solid organ transplant, adherence, and the transition from pediatric to adult health care.

## About the Editors

**Cristina M. Giannantonio**, PhD, is a Professor of Management in the Argyros School of Business and Economics at Chapman University. She is a Research Associate of the Thompson Policy Institute on Disability and Autism at Chapman University. She is the coauthor of *Autism in the Workplace: Creating Positive Employment and Career Outcomes for Generation A* published in 2020 as part of the Palgrave Explorations in Workplace Stigma series. Dr Giannantonio's research interests include autism in the workplace, extreme leadership, and image norms. Her research has been published in academic journals, including the *Journal of Management*, *Personnel Psychology*, and *Personnel Review*. She was the coeditor of the *Journal of Business and Management* from 2004 to 2016. Dr Giannantonio and Dr Hurley-Hanson's book *Extreme Leadership: Leaders, Teams and Situations Outside the Norm* was published by Edward Elgar Publishing in 2014. Her work on autism in the workplace has been presented at conferences around the world and published in leading academic journals

**Amy E. Hurley-Hanson**, PhD, is a Professor of Management in the George L. Argyros School of Business and Economics at Chapman University. She is a Research Associate in the Thompson Policy Institute on Disability and Autism at Chapman University. She is the coauthor of *Autism in the Workplace: Creating Positive Employment and Career Outcomes for Generation A* published in 2020 as part of the Palgrave Explorations in Workplace Stigma series. Her research has been published in numerous journals including the *Journal of Vocational Behavior*, *Journal of Applied Psychology*, *Personnel Review*, *Women in Management Review*, *Journal of Organizational Behavior*, *Group and Organization Management*, *Journal of Leadership and Organization Development*, and *Organizational Dynamics*. She is the coeditor of the book *Extreme Leadership: Leaders, Teams and Situations Outside the Norm*. She was the coeditor of the *Journal of Business and Management* for 12 years. Dr Hurley-Hanson was chosen as an Ascendant Scholar in 2000 by the Western Academy of Management. Her work on autism in the workplace has been presented at conferences around the world and published in leading academic journals.

This page intentionally left blank

## Preface

While much research has historically focused on young children with autism spectrum disorder (ASD), far less research has examined the issues young adults with ASD and other forms of neurodiversity face as they transition into the workplace. Austin and Pisano (2017), in their much-cited *Harvard Business Review* article, detail the numerous advantages that neurodiverse individuals bring to the workplace. The authors suggest that neurodiverse applicants represent an enormous pool of untapped talent that could increase companies' productivity. Researchers have identified some potential skill sets and common characteristics of neurodiverse individuals that may benefit organizations. These skills include visual acuity, more deliberative decision-making, increased attentional focus, logical thinking, affinity for technology, as well as professional and occupational interests in science, technology, engineering, and math (STEM) fields (Crespi, 2016). STEM fields are of particular interest, as there is a growing need for a skilled workforce in these areas (U.S. Bureau of Labor Statistics, 2018). Neurodiverse individuals may be an ideal fit for this segment of the labor market. Forty percent of global corporations are having trouble recruiting the talent they need (Manpower Group, 2018). The demand for talent is expected to dramatically increase as businesses and the economy return to prepandemic levels as vaccination rates increase and infection rates decline (Coy, 2021).

Despite the skill sets of neurodiverse applicants, the unemployment and underemployment rates for neurodiverse individuals, as compared to the general population, remain staggeringly high (Baldwin, Costley, & Warren, 2014; Krieger, Kinebanian, Proding, & Heigl, 2012; Nord, Stancliffe, Nye-Legerman, & Hewitt, 2016; Richards, 2012; Roux et al., 2013; Scott, Falkmer, Girdler, & Falkmer, 2015; Shattuck et al., 2012). Unemployment statistics for adults with ASD reveal that 85% are unemployed and that 69% of them want to work (National Autistic Society, 2016). Research has shown that many individuals with ASD have never been members of the labor force (Cidav, Marcus, & Mandell, 2012).

Shattuck et al. (2012) found that 35% of young adults with autism have never held a job, been members of the labor force, nor attended educational programs after high school (Cidav et al., 2012; Shattuck et al., 2012). A study of 200 transition-age young adults with ASD found that 81% were unemployed (Gerhardt & Lanier, 2010). A small study of young adults with ASD and IQs above 50 found that only 11.76% were employed (Howlin, Goode, Hutton, & Rutter, 2004). Other studies have found that approximately half of young adults with

ASD have worked for pay after high school (Roux et al., 2013). The same study also found that the odds of ever having a paid job were higher for those who were older, from higher-income households, or who had better conversational or functional skills (Roux et al., 2013).

The statistics for young adults are particularly troubling, as it is estimated that a half-million individuals with ASD will reach adulthood in the current decade and will be poised to enter the workplace in unprecedented numbers. These numbers are staggering and suggest the need to examine the long-term employment, career, and life outcomes for this generational cohort. Hurley-Hanson, Giannantonio, and Griffiths (2020) introduced the term *Generation A* to refer to this generational cohort of young adults with ASD. According to Autism Speaks (2019), “Autism Spectrum Disorder (ASD) and autism are both general terms for a group of complex disorders of brain development. These disorders are characterized, in varying degrees, by difficulties in social interaction, verbal and nonverbal communication, and repetitive behaviors.” The World Health Organization (2013) describes ASD as “neurodevelopmental impairments in communication and social interaction and unusual ways of perceiving and processing information” (p. 7). As such, individuals with ASD often have difficulty in understanding the thoughts, intentions, and emotions of others (Bruggink, Huisman, Vuijk, Kraaij, & Garnefski, 2016). Some individuals with ASD may have difficulty regulating their own emotions. These challenges may create transition and employment issues for young adults with ASD (Samson, Huber, & Gross, 2012), not only as they enter the workplace, but potentially throughout their lives as their careers unfold.

According to the Centers for Disease Control and Prevention, 1 in 54 (18.5%) children are on the autism spectrum, and the presence of ASD is 4.3 times more common in boys (29.7%, 1 in 34) than in girls (6.9%, 1 in 144) (CDC, 2020). Autism Speaks (2019) estimates that there are 3.5 million people with ASD in the United States. The number of people affected by ASD is estimated to be in the tens of millions worldwide. Although it is difficult to get exact numbers, it is estimated that 1% of the world’s population has autism (CDC, 2018; Grønborg, Schendel, & Parner, 2013; Malcolm-Smith, Hoogenhout, Ing, De Vries & Thomas, 2013.; Wallace et al. 2012).

Each year the United Nations hosts World Autism Awareness Day. The theme in 2015 was Employment (The Autism Advantage, 2015), which highlighted the potential for persons with autism to make significant contributions in the workplace, given their unique individual strengths. It noted the widespread discrimination in the workplace against people with autism and the limited vocational training and job opportunities available to them. The number of individuals with ASD both in the United States and throughout the world represents an untapped and often overlooked segment of the labor force for organizations seeking to fill job vacancies and meet current and projected skills gaps (Austin & Pisano, 2017).

It is within this context that chapters were selected to be included in this edited volume. Each chapter examines various factors that may play a role in generating a neurodiverse workforce for the benefit of both organizations and individuals with ASD. These chapters capture contemporary research and practice from a diverse

range of scholars, practitioners, and educators, with the goal of building connections between research and practice focused on issues of neurodiversity in the workplace. While all of the chapters in this volume focus on ASD, it should be noted that neurodiversity also includes dyspraxia, dyslexia, attention deficit hyperactivity disorder, dyscalculia, Tourette's syndrome, and other neurological differences. It is hoped that future research on neurodiversity in the workplace focuses on these and other neurological differences to discover the best practices that will lead to positive work, career, and life outcomes for neurodiverse individuals.

## References

- Austin, R., & Pisano, G. (2017). Neurodiversity as a competitive advantage. *Harvard Business Review*, May–June, pp. 98–104.
- Autism Speaks. (2019). Retrieved from <https://www.autismspeaks.org/what-autism>
- Baldwin, S., Costley, D., & Warren, A. (2014). Employment activities and experiences of adults with high-functioning Autism and Asperger's disorder. *Journal of Autism and Developmental Disorders*, 44(10), 2440–2449. doi:10.1007/s10803-014-2112-z
- Bruggink, A., Huisman, S., Vuijk, R., Kraaij, V., & Garnefski, N. (2016). Cognitive emotion regulation, anxiety and depression in adults with autism spectrum disorder. *Research in Autism Spectrum Disorders*, 22, 34–44.
- Bureau of Labor Statistics. (2018). Retrieved from <https://www.bls.gov/opub/mlr/2018/home.htm>
- CDC. (2018). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/ncbddd/autism/data.html>
- CDC. (2020). Centers for Disease Control and Prevention. Retrieved from <https://www.cdc.gov/ncbddd/autism/data.html>
- Cidav, Z., Marcus, S. C., & Mandell, D. S. (2012). Implications of childhood autism for parental employment and earnings. *Pediatrics*, 129(4), 617–623. doi:10.1542/peds.2011-2700
- Coy, P. (2021). The curious case of hard-to-find workers. Bloomberg.com. Retrieved from <https://www.bloomberg.com/news/articles/2021-03-17/the-curious-case-of-hard-to-find-workers>
- Crespi, B. J. (2016). Autism as a disorder of high intelligence. *Frontiers in Neuroscience*, 10, 300. Retrieved from <https://doi.org/10.3389/fnins.2016.00300>
- Gerhardt, P. F., & Lainer, I. (2010). Addressing the needs of adolescents and adults with autism: A crisis on the horizon. *Journal of Contemporary Psychotherapy*, 41(1), 37–45.
- Gronborg, T. K., Sdel, D. E., & Parner, E. T. (2013). Recurrence of autism spectrum disorders in full- and half-siblings and trends over time: A population-based cohort study. *JAMA Pediatrics*, 167(10), 947–953. doi:10.1001/jamapediatrics.2013.2259
- Howlin, P., Goode, S., Hutton, J., & Rutter, M. (2004). Adult outcome for children with autism. *Journal of Child Psychology and Psychiatry*, 45(2), 212–229.
- Hurley-Hanson, A. E., Giannantonio, C. M., & Griffiths, A. J. (2020). Autism in the workplace. Creating positive outcomes for Generation A. In Gedro, J. (Ed.), *Palgrave explorations in workplace stigma*. Cham: Palgrave Macmillan.

- Krieger, B., Kinebanian, A., Proding, B., & Heigl, F. (2012). Becoming a member of the workforce: Perceptions of adults with Asperger syndrome. *Work*, 43(2), 141–157.
- Malcolm-Smith, Hoogenhout, M., Ing, N., De Vries, P. J., & Thomas, K. G. F. (2013). Autism spectrum disorders—Global challenges and local opportunities. *Journal of Child and Adolescent Mental Health*, 25(1). doi:10.2989/17280583.2013.767804
- Manpower Group. (2018). Solving the talent shortage. Retrieved from <https://go.manpowergroup.com/talent-shortage-2018>
- National Autistic Society. (2016, April). The National Autistic Society. Retrieved from [www.autism.org.uk](http://www.autism.org.uk)
- Nord, D. K., Stancliffe, R. J., Nye-Legerman, K., & Hewitt, A. S. (2016). Employment in the community for people with and without autism: A comparative analysis. *Research in Autism Spectrum Disorders*, 24, 11–16.
- Richards, J. (2012). Examining the exclusion of employees with Asperger syndrome from the workplace. *Personnel Review*, 41(5), 630–646.
- Roux, A. M., Shattuck, P. T., Cooper, B. P., Anderson, K. A., Wagner, M., & Narendorf, S. C. (2013). Postsecondary employment experiences among young adults with an Autism Spectrum Disorder RH: Employment in young adults with autism. *Journal of the American Academy of Child & Adolescent Psychiatry*, 52(9), 931–939.
- Samson, A. C., Huber, O., & Gross, J. J. (2012). Emotional reactivity and regulation in adults with autism spectrum disorders. *Emotion*, 12, 659–665. doi:10.1037/a0027975
- Scott, M., Falkmer, M., Girdler, S., & Falkmer, T. (2015). Viewpoints on factors for successful employment for adults with autism spectrum disorder. *PloS One*, 10(10), e0139281.
- Shattuck, P. T., Narendorf, S. C., Cooper, B., Sterzing, P. R., Wagner, M., & Taylor, J. L. (2012). Postsecondary education and employment among youth with an autism spectrum disorder. *Pediatrics*, 129(6), 1042–1049.
- The Autism Advantage. (2015). Retrieved from <http://webtv.un.org/watch/2015-world-autism-awareness-day-employment-the-autism-advantage/4149043523001>
- Wallace, S., Fein, D., Rosanoff, M., Dawson, G., Hossain, S., Brennan, L., ... Shih, A. (2012, June). A global public health strategy for autism spectrum disorders. *Autism Research*, 5(3), 211–217. doi:10.1002/aur.1236.Epub2012.May.17
- World Health Organization. (2013). *Autism spectrum disorders and other developmental disorders: From raising awareness to building capacity*. Geneva: WHO.

# Acknowledgments

We would like to thank our families, friends, and colleagues who supported us as we worked to put together the chapters that comprise this edited volume. We are grateful to our families for their unwavering support, encouragement, and patience. We are both aware that the time we spend writing is time we do not spend with them.

We would like to thank our colleagues in the Argyros School of Business and Economics for their support and friendship. Rita Desjardins, Aulton Kohn Jr, Linda Corcoran, and Jennifer Brady personify organizational commitment, and we could not do our jobs without them. We would like to acknowledge the help and support of Eileen Bresner in the Office of Faculty Affairs. Eileen shepherded both of us through the process of going up for Full Professor with patience, warmth, and grace.

We also appreciate the support and advice of the editorial team at Emerald Publishing, especially Charlotte Maiorana, who became familiar with our work, reached out to us with the idea of becoming series editors for Emerald Publishing, and who championed this first book in the series. We also wish to thank Kiruthika Andappan and Hayley Coulson along with the rest of Emerald's publishing team for their help in making this book a reality. We are particularly grateful to the authors who contributed chapters focusing on Generation A. We are excited to have had the opportunity to work with researchers, practitioners, and educators who are committed to improving the work experiences and careers of Generation A.

Few of us could have imagined the challenges, adjustments, and obstacles that the pandemic would bring. COVID-19 attempted to derail many of our authors by shutting down research sites, limiting the ability to conduct in-person interviews, restricting travel, closing campuses, striking them and their families with the virus, and losing loved ones to the disease. Unprecedented rain in parts of the United States and Australia left some of our authors with flooded homes and no running water or electricity for weeks, while fires in Southern California resulted in last-minute evacuations for others. We are grateful for their dedication to their research and their commitment to creating a more inclusive workplace for members of Generation A. We thank them for their patience with us, for the many revisions, and for putting our deadlines ahead of their own during a challenging year.

**xx** *Acknowledgments*

Finally, neither of us could have produced this book alone. We are fortunate to be friends who work together and colleagues who are friends.

Cristina M. Giannantonio and Amy E. Hurley-Hanson  
Professors of Management  
Chapman University

# Generation A: Research on Autism in the Workplace

*Cristina M. Giannantonio and Amy E. Hurley-Hanson*

## Introduction

This book is the first volume in the *Emerald Studies in Workplace Neurodiversity* Series. This series focuses on making significant contributions to the development of research on neurodiversity in the workplace and will capture contemporary research and practice from a diverse range of scholars, practitioners, and educators. This series is intended to build connections between research and issues of neurodiversity in the workplace.

This book explores ways that researchers can help facilitate finding and maintaining employment for individuals with autism spectrum disorder (ASD). The chapters included in this volume specifically focus on the transition, work, and career experiences of Generation A. Hurley-Hanson, Giannantonio, and Griffiths (2020) introduced the term Generation A to refer to the 500,000 young adults with ASD that will be poised to enter the workplace in the current decade. The chapters in this volume are organized and presented along two important themes: *Individual and Organizational Interventions to Help Support Generation A in the Workplace* and *The Legal and Functional Environment and Research on Employing Generation A*.

The first theme *Individual and Organizational Interventions to Help Support Generation A in the Workplace* focuses on strategies for implementing organizational best practices to help support Generation A in the workplace. These chapters offer suggestions for adapting training and development programs to improve the work experiences of Generation A, to successfully integrate individuals with ASD into the workforce, and to take notice of the importance of the workplace social environment and person–job fit.

The chapter entitled *Workplace Training for Employees with Autism Spectrum Disorder* (Chapter 1) by Karen R. Johnson and Kasha Williams argues that there is an urgent need to expand employment opportunities and to find ways to support individuals with ASD on the job. The authors note that there is very little research investigating the organizational practices that are needed to successfully integrate individuals with autism in the workplace. Training is presented as one

company practice that can significantly impact the behavior and work outcomes of individuals with ASD. The authors note that despite the importance of training interventions, research focused on relevant training techniques for individuals with ASD is lacking and fragmented. This chapter summarizes the types of training that are most appropriate and most often utilized to foster skill development and enhance employment outcomes for members of Generation A.

The chapter entitled *Organizational Knowledge Creation: The Autism Enigma* by Jillian Saylor (Chapter 2) notes that a manager's role is to increase knowledge transfer, knowledge exchange, and knowledge creation. The author suggests that there is no concern that individuals with ASD do not have performance skills but that some individuals do not socialize well with others and that it is the social environment that impacts knowledge creation. The author presents cognitive theory as a better predictor of how individuals socially interact with each other rather than how they feel toward each other. The chapter discusses the importance of cognitive style in understanding the abilities and behaviors of individuals with autism. Research suggests that the cognitive styles of individuals with ASD are trainable to fit the social and organizational environment. This chapter discusses training materials such as the visual schedule, the staff baseball cards, and role-playing that may help individuals with ASD navigate the organization. Also discussed is training that helps with interpersonal interactions, such as spect-act emotives, object theater, storytelling theatrics, and environment, roles, guidelines, and objectives (ERGOS).

The chapter entitled *Individual and Organizational Recommendations for Opening the Workplace* (Chapter 3) by Nadia Bhuiyan, Margaret Young, and Daniel J. Svyantek suggests that the workplace will be a major element in cultivating fulfilling lives for members of Generation A. Social interaction is an integral component for functioning within most postsecondary and occupational settings. It is necessary to understand the interaction between individuals with ASD and organizations to understand potential social and behavioral deficits. The authors note that a workplace is inherently a social place; thus, understanding both formal and informal social information in the workplace may be critical to successful job performance. Fit, particularly person–organization fit, is used to address the social nature of the workplace. Understanding this interaction may help to provide a means for crafting both individual and organizational interventions which support individuals with ASD in the workplace. This chapter provides an analysis of such interventions and proposes that these interventions will help create a more supportive work environment for those with ASD.

The second theme *The Legal and Functional Environment and Research on Employing Generation A* focuses on how researchers can help facilitate finding and maintaining employment for Generation A. The legal environment is explored and evaluated along with governmental efforts related to the employment of individuals with ASD. These chapters cover databases and governmental information sources that may provide resources for researchers interested in the transition and employment of members of Generation A. In addition, these chapters explore legal and political policies that may affect the work and life outcomes of individuals with ASD.

The chapter entitled *Investigating Recommended Jobs for Generation A Individuals with High Functioning Autism to Enhance Person–Job Fit* (Chapter 4) by Gundars Kaupins examines the importance of attaining a skill match with jobs. The author presents arguments to suggest that members of Generation A who are individuals with Asperger’s (high functioning autism) might increase their chances that their skills fit with job requirements (i.e., person–job fit) by considering various nonacademic and popular lists of Asperger-friendly jobs. The author focuses on Temple Grandin’s list of 51 Asperger-friendly jobs to investigate using Asperger-related job characteristics from the US Department of Labor’s O\*NET job description database. Results of using a factor analysis resulted in six Asperger-related job characteristics, with social orientation emerging as the only factor that significantly predicted Grandin’s judgment of what is an Asperger’s-related job based on a binomial logistic regression analysis. Another analysis using data from the O\*NET showed a wide variety of jobs that were most and least associated with each of the six factors. The chapter concludes with study limitations and directions for future research based on these types of analyses.

The chapter entitled *The Failures and Promise of the Workforce Innovation and Opportunity Act (WIOA)* (Chapter 5) by Tara Cunningham draws attention to the potent challenge of optimizing lifespan outcomes for Generation A. The chapter discusses key provisions of the 2014 WIOA, which called for a unified and social model supports structure to help the education to preemployment transition through “required activities” such as job exploration counseling, integrated work-based learning experiences, postsecondary educational programs at institutions of higher education, social skills, and self-advocacy training. The central purpose of WIOA was to streamline preemployment transition services designed to assist young adults in the move from education to integrated paid employment. This is in contrast to the historical medical model, a deficits-based approach to transition. The author notes that despite billions in government funding, over 50% of autistic adults remain in segregated, subminimum wage jobs and the 85% underemployment or unemployment rate for autistic graduates remains for those with and without college degrees.

The chapter entitled *Evaluating Data for Assessing Postsecondary Schooling and Career Outcomes of Generation A* by Melissa J. Bjelland and Susanne M. Bruyere (Chapter 6) argues that employment participation is an important part of individual economic independence for individuals with ASD, as well as influencing one’s ability to contribute to broader civil society in meaningful ways. The authors suggest that it is of particular importance for members of Generation A to establish a sound foundation as they exit their teenage years that includes postsecondary educational pursuits and labor force involvement. This chapter explores corresponding outcomes of individuals with ASD who recently progressed through these life stages as a way to help inform Generation A, and the families and educators who support them, how to better prepare for the workplace of the future. This requires robust representative data containing refined disability detail, employment, and training information, as well as well-being and support content. This chapter discusses currently available public surveys and administrative microdata that can be used by researchers and practitioners as they

delve into these issues. These data will assist educators, family members, as well as young adults with Autism themselves to better navigate the transition from school to work, to successfully secure work, and ultimately achieve economic independence, which is critical to adulthood.

The chapter entitled *Creating Opportunity Through Workforce Development Innovation* (Chapter 7) by Meaghan Timko notes that despite a growing number of individuals with Autism graduating from high school and university, there is a lack of reliable resources dedicated to assisting the transition from education to the world of work. Despite federal state programs, dedicated nonprofits, and highly publicized corporate hiring initiatives, the unemployment rate for individuals with Autism remains above the national average. The author notes that corporations have started to recognize the untapped potential of the neurodivergent worker but have struggled with sourcing talent and failed to develop practicable pipeline models across various industries that are open-sourced, easily replicated, scalable, and financially sustainable. The author suggests that methods, programs, and paradigms that exist amid current statistics reveal the imperative for innovative ideas that can be executed by multiple stakeholders to affect both the work seekers and the job creators. A systems approach to developing talent pipelines is presented as one possible solution, as well as other new expeditions and collaborative, open-sourced concepts that hold promising statistics and anecdotal data about what could be the next iteration of workforce development in an increasingly neurodivergent world.

In summary, we believe that this book offers insights into the transition, work, and career experiences of the young adults with ASD who comprise Generation A. This book brings together scholars, practitioners, and educators who are researching autism in the workplace with a particular emphasis on Generation A. The chapters presented in this volume offer researchers, educators, and practitioners several avenues for smoothing the transition from educational settings into the workplace for a generational cohort who are poised to enter the labor market, eager to work, and able to achieve positive work and life outcomes. This book provides several new contributions to both the disability literature and research on ASD in the workplace. This book has the potential to reduce the stigma associated with ASD, change image norms surrounding ASD, and facilitate integrating individuals with ASD into the workforce. Hopefully, this book will be a valuable resource for individuals with ASD, as well as their families and caregivers. It will also be an important resource for organizations interested in obtaining the benefits of hiring people with ASD and to advocacy groups supporting the transition and employment needs of individuals with ASD.

## References

- Hurley-Hanson, A. E., Giannantonio, C. M., & Griffiths, A. J. (2020). *Autism in the workplace. Creating positive outcomes for generation A*. Palgrave explorations in workplace stigma. Cham: Palgrave Macmillan.

**Part I**  
**Individual and Organizational Interventions**  
**to Help Support Generation A in the**  
**Workplace**

This page intentionally left blank

## Chapter 1

# Workplace Training for Employees with Autism Spectrum Disorder

*Karen R. Johnson and Kasha Williams*

### Abstract

In the next decade, it is estimated that a large percentage of individuals with autism spectrum disorder (ASD) will become of working age. With this projection, there is an urgent need to expand employment opportunities and to find ways to support individuals with ASD on the job. However, very minimal research investigates organizational practices needed to integrate individuals with autism in the workplace successfully. Training is one company practice that can significantly impact the behavior and work outcomes of individuals with ASD. Despite the importance of training interventions, research focused on relevant training techniques for individuals with ASD is lacking and fragmented. This chapter summarizes the types of training that are appropriate and most often utilized to foster skill development and aid employment outcomes for *Generation A*.

*Keywords:* Autism; workplace; behavioral skills training; skill development; technology-based training; on-the-job training

In the next decade, it is projected that an increasing percentage (230%) of individuals with autism spectrum disorder (ASD) (Hensel, 2017) will reach the age of young adults, also referred to as *Generation A*. With this projection, there is an urgent need to expand employment opportunities and to find ways to support individuals with ASD on the job. There is a lack of research on employment skill development and strategies needed to improve the work outcomes of individuals with ASD (Bennett & Dukes, 2013; Johnson, Ennis-Cole, & Bonhamgregory, 2020). Moreover, an increase in higher-functioning individuals with ASD results in a growing number pursuing postsecondary degrees (Nicholas, Mitchell, Zulla, & Dudley, 2019). Postsecondary education and training can increase the likelihood of competitive or paid employment, retention, and work outcomes. Individuals with

ASD have the desire and ability to work after secondary education or following training programs (Hendricks, 2010) and are endowed with math, memory, cognitive, spatial, musical, and artistic skills (Hillier et al., 2007) and other competencies and qualities needed for the workplace, but work opportunities are limited. Despite the importance of training interventions, research focused on relevant training techniques for individuals with ASD is lacking and fragmented. This chapter summarizes the types of training that are appropriate and most often utilized to foster skill development and aid employment outcomes for *Generation A*.

The disorder is characterized by persistent deficits in communication and social interactions and restricted and repetitive patterns of behavior, interests, or activities (American Psychiatric Association, 2013). These impairments cause occupational performance to be challenging since social, communication, and certain behavioral skills are required for effective functioning in the work environment. Consequently, employment opportunities are limited because of the range of impairments necessary to be competent on the job. Despite their impairments, individuals with autism have a range of talents and giftedness (Skibell, 2017). While some may not need assistance to function appropriately in a work setting, others will need to be specially trained to accomplish job tasks quickly and efficiently. Individuals with ASD may learn differently from most other people, and their ability to learn, think, and problem-solve can range from gifted to severely challenged (CDC, 2020). Various types of training have been used as interventions that can improve the work performance of individuals with ASD in different organizational settings (Johnson et al.; Wehman et al., 2017). Research indicates that individuals who receive vocational services and job readiness training are more likely to gain employment (Alverson & Yamamoto, 2018; Kaya et al., 2016). Additionally, the ASD population often encounters difficulty in retaining employment.

Employees with ASD are typically employed for short time periods because of various challenges with employers, supervisors, and coworkers or because of job demands (Mawhood & Howlin, 1999). Employers are often hesitant to employ individuals with ASD because of a lack of awareness and understanding of the disorder. They tend to focus more on the negative behaviors than their potentials and capabilities (Nesbitt, 2000). Employment support programs should be developed to inform employers and work colleagues of the strengths and challenges of individuals with ASD (Frank et al., 2018).

Just a handful of employers are beginning to realize the value in employing this gifted and talented underrepresented population (Caron, Motttron, Rainville, & Chouinard, 2004). Research has shown that with appropriate intervention and training, positive behavior change and improved work performance may be attained by individuals with ASD (Wehman et al., 2017). However, investment in training and development initiatives is imperative to support appropriate skill development, functioning, and retention of young adults with ASD in the workplace. Through training, they can develop communication, social, and work-appropriate behavioral skills and job-specific competencies and experience increased independence on the job and improved work performance. On-the-job