

# Bringing Neuroethics to Life in Autism Employment Research

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## Introduction

- Various cognitive, psychological, and neurological theories seek to explain how autistic & non-autistic people differ (1,2,3).
- Autism employment research needs neuroethics attention to these theories:
  - Autistic people face higher unemployment rates.
  - Employment is used as a clinical outcome measure.
  - Diagnosis can qualify employees for workplace accommodations.
- Question: How do autistic people spontaneously use neuroscientific theories of autism to explain the similarities and differences between autistic and non-autistic people at work?

## Methods

- Ongoing study.
- Semi-structured and photo-elicitation interviews (n = 17).
- Inductive and deductive thematic analysis.
  - Preliminary analysis of 7 participants is described here.

## Results

- Participants spontaneously used neuroscientific theories of autism in several ways:
  - Addressed or alluded to 7 out of 12 dominant theories found in our literature review.
  - Indirectly refuted **extreme male brain**, **social motivation**, and **intense world** theories.
- Participants described several similarities to and differences from others at work that did not relate to neuroscientific theories of autism, such as **work roles & experiences**, **social demographics**, **personality & personal characteristics**, and **communication styles**.
- Many participants actively masked (hid) their autistic identity or traits from others at work. Such masking often successfully hid differences from others that were very apparent to the participant.

## Results (continued)

“” = verbatim quote; “ = non-verbatim quote (from non-recorded speech), [...] = removed text, [my friend] = proper noun replaced for confidentiality


Theories	Representative Quote
Monotropism Hypothesis	“...from what I've told when I was, uh, talking about my Asperger's Syndrome, was that, the the the obsessions, is that, 'you're just going to like a lot of certain things, and very rarely are you going to get bored of them' [...] most of my friends know that I also have Asperger's syndrome [...] and I kind of told them the same thing, like I just said, it's like 'I like these things, and that's really about it.'”
Executive Functioning	“Executive functioning is hard, you know, just in general, executive functioning is hard, in life. Um, it's a little easier at work than it is at home. But, um, but sometimes I sit down and go, 'Which things should I do 1st, which things should I do next? I don't know where to start.'”
Intense World	“For autistic people have these kinds of sensory differences and just not like certain types of whole categories of foods, because they're difficult and its basically your brain saying 'don't eat that, it's dangerous.'”
	(Rejects) ‘I have a sensory deficit [...] It means things like the cold won't affect me as bad as they would affect you if you went out in the cold. [...] It would be more painful for you, even though it has the same affect.’
Social Reward	“This was mostly because I saw myself in some of the autistic campers—their sensory sensitivities and desire to play mostly alone or in small groups was something I definitely related to.”
	(Rejects) “[Being accepted is] more like, ‘Oh these guys are treating me like one of the guys. They're inviting me out to hang out’ [...] Like I am in special Olympics and, like none- none of us want to feel like we don't belong. We just want to be accepted by people.”
Extreme Male Brain Theory	(Rejects) “... the empathy is really useful in teamwork in collaborative situations. These are, you know, these are all things that are sort of natural to me. In in my sort of, I don't know what's the right word, brand, flavor of autism, my place on the spectrum, that I've been able to capitalize on them and hone them even sharper.”
Neurodiversity	“And so, like, my being there and then also helping them understand from a neurodivergent perspective as well is really, really great that I don't have to really hide [...] who I am.”
Double Empathy Problem	“My co-workers usually complimented me on my ability to understand the autistic campers and their needs, but it was really because I was the same way.”
Theory of Mind	“I can't read body language or facial expressions... Somebody could be steamingly pissed at me. And I would have no idea.”
No clear examples for Central Coherence; Diametric Model; Extreme Male Brain; Mirror Neuron; Psychogenic Theories.	

Table 1: Inductive Analysis

Similarities & Differences	Representative Quote
Similar Work Roles & Experiences	“It seems to be the big connection is with automobiles and cars and learning, new, new ideas, new techniques”
Similar Personality & Personal Characteristics	“We're a bunch of, um, quiet nerdy, introverted people.”
Different Personality & Personal Characteristics	“They don't really mesh personality wise with me”
Different Social Demographics	“Um... I have one coworker... who, she is older, and she's probably going to retire in, like, 5 years. And, like, sometimes talking to her is just really awkward because I never really know what she's thinking.[...].But, like, I just don't think we really vibe together yet.”
Different Communication Styles	“There was a lot of miscommunication [...] she one time told me that, like, I was overwhelming her with, like, so many messages or whatever.”

Table 2: Select Emergent Analysis

“They would often make fun of [my friend]'s autistic traits without knowing about [my friend] being autistic. It made it really hard for me to work with them because I had to hide those traits in order to not be talked about like that.”



“Masking”

“I was treated the same just because I hadn't told anybody I was autistic.”

## Conclusion

- As asserted by Yergeau (4), autistic people use neuroscientific language in creative and counter-hegemonic ways.
- Future research will contrast autistic and non-autistic participants’ descriptions.

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