

Screened Out: How Ai Hiring Tools Disadvantage Neurodivergent Candidates

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Abstract

As artificial intelligence becomes the default gatekeeper of employment, a troubling pattern has emerged: tools designed to eliminate human bias are systematically reproducing it in new, algorithmic forms. This paper examines how AI-powered hiring tools — including Applicant Tracking Systems (ATS), video interview analyzers, gamified cognitive assessments, and personality screening platforms — disproportionately disadvantage neurodivergent candidates, including those with autism spectrum disorder, ADHD, dyslexia, and dyspraxia. Drawing on recent empirical studies, legal cases, and sociological frameworks, this paper argues that AI hiring tools encode neurotypicality as the normative standard, rendering neurodivergent traits as signals of unsuitability rather than as markers of cognitive diversity. The paper identifies key mechanisms of bias, their structural consequences, and significant gaps in existing research — particularly the under-examination of non-autistic neurodivergence, the absence of intersectional analysis, and the near-total neglect of non-Western contexts.

Keywords: Neurodivergence, AI hiring tools, algorithmic bias, Applicant Tracking Systems (ATS), autism spectrum disorder, ADHD, dyslexia, proxy discrimination, neurotypicality, video interview analysis, gamified assessments, disability discrimination, structural exclusion, inclusive design, Americans with Disabilities Act (ADA), EU AI Act, algorithmic stigma, training data bias, employment gap, Goffman, Foucault, Bourdieu

1. INTRODUCTION

The automation of recruitment has transformed hiring into an algorithmic process. Across industries, companies deploy Applicant Tracking Systems (ATS) to parse resumes, AI-driven video platforms to analyze speech and facial expressions, and gamified assessments to evaluate cognitive traits — all before a human recruiter ever reviews a single application. Proponents argue these tools reduce the subjectivity and inconsistency of human judgment. In practice, however, they often encode and amplify existing biases in new and invisible ways.

Among those most harmed by this shift are neurodivergent candidates — individuals whose neurological development differs from what is statistically typical. Neurodivergence is an umbrella term encompassing autism spectrum disorder (ASD), attention deficit hyperactivity disorder (ADHD), dyslexia, dyspraxia, obsessive-compulsive disorder (OCD), and other cognitive variations. These individuals represent a substantial portion of the workforce: researchers estimate that neurodivergent people constitute 15–20%

of the global population, approximately 67 million Americans alone (SmarterArticles, 2025). Yet their unemployment rates are staggering — reaching 30–40%, three times higher than for people with physical disabilities and eight times higher than for non-disabled individuals. For college-educated autistic adults, the figure climbs to 85% (SmarterArticles, 2025).

This paper argues that AI hiring tools are a significant — though often invisible — contributor to this employment gap. These tools are trained on data that reflects the behavioral and communicative norms of neurotypical workers, and in doing so, they systematically penalize the very traits that define neurodivergent expression: atypical eye contact, non-linear speech, unconventional career paths, and unusual response patterns on personality assessments. The result is a form of structural discrimination that operates without intent and leaves almost no paper trail.

2. How AI Hiring Tools Work

Modern recruitment technology operates across several stages of the hiring funnel, each presenting distinct risks for neurodivergent applicants.

2.1 Applicant Tracking Systems (ATS)

ATS software parses resumes and scores them based on keyword matching from job postings. Candidates whose resumes do not include specific terminology — regardless of actual competence — are filtered out before any human review. Neurodivergent candidates often have non-linear career paths, employment gaps, or unconventional formatting that ATS systems penalize. A 2024 University of Washington study found that AI hiring tools ranked resumes mentioning autism-related awards or memberships lower than otherwise identical applications — these resumes were selected as top candidates least often compared to all other resume types (UW News, 2024).

2.2 AI Video Interview Analysis

Platforms such as HireVue use machine learning algorithms to analyze video interviews, scoring candidates on vocal tone, facial expressions, eye contact, and speech cadence. These features are weighted according to profiles built from past "successful" employees — who are overwhelmingly neurotypical. For autistic candidates, reduced eye contact or flat affect may signal disengagement to the algorithm. For candidates with ADHD, speech disfluencies or tangential answers may trigger lower scores. A socio-legal study published in the *Journal of Law and Society* (Sheard, 2025) found that video AI's requirement for sustained eye contact may function as a proxy for neurotypicality, constituting indirect discrimination.

2.3 Algorithmic Personality Tests and Gamified Assessments

Many companies deploy personality assessments that measure traits such as "emotional awareness" or "positivity" using forced-choice question formats. These assessments are not neutral: A 2023 FTC complaint filed by the ACLU on behalf of a biracial autistic job applicant illustrates the mechanism clearly. The complaint targeted Aon's hiring assessments, arguing that questions measuring traits like emotional awareness or positivity — framed as generic workplace virtues — map directly onto clinical markers of autism and ADHD. Candidates who respond authentically are effectively penalised for their neurology, not their competence (ACLU, 2023). Gamified cognitive assessments present similar problems: timed memory games and pattern-recognition tasks may disadvantage those with ADHD or processing-speed differences, even when such tasks bear no relation to actual job performance.

3. Where Bias Enters: Mechanisms of Algorithmic Discrimination

3.1 Biased Training Data

AI systems learn from historical hiring data. If past successful hires were predominantly neurotypical — as is the case in most organizations — the algorithm learns to associate neurotypical communication styles with job success. This is not a deliberate design choice; it is a structural consequence of training on unrepresentative data. As Glazko et al. (2024) demonstrated in their ACM FAccT paper on GPT-based resume screening, generative AI models carry disability-related biases derived from their training corpora that manifest in lower hireability scores for candidates who signal neurodivergence.

3.2 Language Model Bias

A landmark 2024 peer-reviewed study by Brandsen et al., published in *Autism Research* (Duke University), used 11 different language model encoders and the Word Embedding Association Test (WEAT) to measure bias. The study found that AI language models systematically associate neurodivergent terms — such as "autism," "ADHD," and "OCD" — with concepts related to danger, disease, and moral badness. Remarkably, the phrase "I have autism" was associated with more negative connotations than "I am a bank robber" (Brandsen et al., 2024). When these same language models power resume screening or candidate evaluation tools, they embed discriminatory associations without any explicit discriminatory programming.

3.3 Proxy Discrimination

One of the most insidious forms of AI hiring bias operates through proxy discrimination — where a facially neutral criterion functions as a stand-in for a protected characteristic. Eye contact is a proxy for neurotypicality. Speech rhythm is a proxy for cognitive processing style. Responses to open-ended personality questions are proxies for neurological wiring. Crucially, an applicant may never disclose their neurodivergence, yet still be screened out on this basis. The Aon case is instructive precisely because the applicant never disclosed an autism diagnosis. The screening did not need a disclosure to operate as a filter — the ADEPT-15 personality test and the gridChallenge cognitive game together produced the discriminatory outcome through statistical pattern-matching, not explicit inquiry (ACLU, 2023).

3.4 The Transparency Problem

A core challenge compounding these biases is the near-total opacity of AI hiring systems. Without federal AI disclosure requirements in the United States, applicants often do not know whether AI is being used, what criteria it measures, or how to request accommodations. This opacity is particularly harmful for neurodivergent candidates who, under the Americans with Disabilities Act (ADA) and the UK Equality Act 2010, have a legal right to reasonable accommodations — but cannot exercise that right if they do not know an automated system is making decisions about them (Bloomberg Law, 2025).

4. Structural Consequences and Social Impact

The consequences of AI hiring bias for neurodivergent candidates are not merely individual inconveniences — they are systemic exclusions with cascading social effects. When neurodivergent candidates are filtered out at the screening stage, they are denied the opportunity to demonstrate competence in a human interaction. The discrimination is invisible, pre-emptive, and difficult to contest legally.

The EEOC reported 488 autism-related disability discrimination charges in fiscal year 2023 alone — a substantial rise from prior years — with autism-related merit resolutions more than tripling between 2016 and 2023. Between 2018 and 2024, the EEOC filed at least 12 ADA cases involving neurodiverse workers, including those with autism, ADHD, and dyslexia (Sovereign Magazine, 2025). A 2024 survey further

revealed that 76% of neurodivergent job seekers feel traditional and automated recruitment methods put them at a disadvantage, while half reported experiencing discrimination after disclosing their condition, with 31% seeing their applications abandoned entirely post-disclosure (SmarterArticles, 2025).

From a sociological standpoint, these patterns reflect what Erving Goffman termed stigma — the social process by which individuals are reduced from whole persons to tainted or discounted ones based on perceived deviance from a norm (Goffman, 1963). AI hiring tools institutionalize stigma: they operationalize neurotypicality as the norm and neurodivergent traits as deviations to be penalized. Meanwhile, Michel Foucault's concept of normalization — the way power systems produce and enforce the "normal" body and mind — offers an additional lens: algorithmic hiring functions as a technology of normalization, sorting candidates not by capability but by conformity to a neurotypical standard.

The cost of this exclusion is borne not only by individuals but by organizations themselves. Neurodivergent employees in tech roles — engineers and technicians — have been found to be between 90% and 140% more productive than their neurotypical peers in equivalent roles (Neurodiversity in Business, 2023). Skills common among neurodivergent individuals — pattern recognition, hyperfocus, attention to detail, and systematic thinking — are precisely those most valuable in data science, software engineering, and AI development. By algorithmically filtering out these candidates, organizations undermine the very innovation capacity they seek.

5. Research Gaps

Despite growing attention to algorithmic bias in hiring, significant gaps remain in our understanding of its specific impact on neurodivergent candidates.

First, the research literature is heavily skewed toward autism, with ADHD, dyslexia, dyspraxia, and dyscalculia largely unstudied in the AI hiring context. As Brandsen et al. (2024) noted, the relative absence of advocacy for less-recognized conditions like dyslexia may explain why these terms score even lower on AI "goodness" metrics than conditions that receive more public attention. This gap is significant because neurodivergence is a spectrum, and the mechanisms of bias likely differ by condition.

Second, there is virtually no intersectional research examining what happens when neurodivergence overlaps with race, gender, or socioeconomic class in AI hiring systems. A Black autistic woman navigating an AI screening tool faces compounded disadvantages — algorithmic bias operating simultaneously along multiple axes — yet existing research treats these dimensions in isolation.

Third, gamified assessments remain underexplored. While ATS and video interview bias have received scholarly attention, the specific discriminatory mechanisms of timed cognitive games and behavioral simulations — and their differential impact across neurodivergent profiles — have not been systematically studied.

Fourth, and perhaps most significantly, the entire body of research is concentrated in the United States and United Kingdom. There is no study examining how AI hiring tools affect neurodivergent candidates in the Global South — including India, where formal neurodivergence diagnoses remain rare, cultural stigma is pronounced, and AI hiring tools are increasingly adopted by multinational corporations. This geographic blind spot represents both a research gap and a justice concern.

6. A Sociological Framework: Stigma, Normalization, and Capital

Understanding why AI hiring tools disadvantage neurodivergent candidates requires going beyond technical explanations. Three sociological frameworks illuminate the deeper structural logic at work.

6.1 Goffman's Stigma and the Spoiled Identity

Erving Goffman's concept of stigma — the process by which a person is reduced from a whole person to a tainted or discounted one based on perceived deviance from a norm — maps directly onto the experience of neurodivergent candidates in automated hiring (Goffman, 1963). In traditional hiring, stigma operates through human judgment: an interviewer notices an unusual mannerism and forms a negative impression. In AI hiring, stigma is pre-programmed. The algorithm has already decided which mannerisms are undesirable, based on training data, before the candidate ever applies. The result is what we might call algorithmic stigma — a systematized, scalable, and largely invisible form of the same social process Goffman described. Crucially, Goffman also described the practice of "passing" — concealing a stigmatized identity to avoid discrimination. In AI hiring, passing is increasingly difficult: behavioral signals, speech patterns, and response styles are analyzed by machines that do not respond to conscious self-presentation in the way human interviewers do.

6.2 Foucault's Normalization and the Disciplinary Algorithm

Michel Foucault's analysis of normalization — the way modern institutions produce, enforce, and police the idea of the "normal" individual — offers an equally powerful lens (Foucault, 1977). For Foucault, disciplinary power does not operate primarily through force; it operates through measurement, comparison, and the hierarchical ranking of individuals against a norm. AI hiring tools are a near-perfect instantiation of this logic. They measure candidates against a statistical model of the successful employee, rank deviations from that model as deficiencies, and eliminate those who fall outside acceptable parameters — all without the candidate's knowledge. The algorithm is a disciplinary technology, and the neurotypical behavioral profile it encodes is the norm it enforces. Neurodivergent candidates are not rejected for lacking skills; they are rejected for failing to conform.

6.3 Bourdieu's Cultural Capital and the Neurotypical Habitus

Pierre Bourdieu's concept of cultural capital — the non-financial social assets (knowledge, behaviors, skills) that confer advantage in social fields — adds a third dimension. In Bourdieu's framework, certain forms of cultural capital are valued in specific fields, and those who possess the "right" capital are rewarded. AI hiring tools operationalize a very specific form of cultural capital: the ability to perform neurotypical social norms — sustained eye contact, smooth articulate speech, rapid and confident responses to open-ended questions. This is not a measure of job competence; it is a measure of habitus, the deeply ingrained set of dispositions acquired through socialization. Neurodivergent individuals, whose habitus differs from the neurotypical norm, are thus penalized not for what they know or can do, but for how they naturally are. The algorithm launders this cultural preference as objective measurement.

7. The Paradox: AI as Both Barrier and Enabler

One of the most striking and underexplored tensions in this area is that the same technology that excludes neurodivergent candidates at the hiring gate can dramatically improve their experience once they are employed. This paradox deserves serious attention, as it complicates any simple narrative of AI as uniformly harmful to neurodivergent people.

A recent study from the UK's Department for Business and Trade found that neurodiverse workers were 25% more satisfied with AI assistants than neurotypical colleagues and were more likely to recommend AI tools to others (CNBC, 2025). For individuals with ADHD, AI meeting transcription tools remove the

cognitive burden of simultaneous listening and note-taking. For individuals with dyslexia, text-to-speech and AI writing assistants reduce the gap between their ideas and their written output. For autistic workers, AI-mediated communication can reduce the social processing demands of workplace interaction.

The paradox, then, is this: AI is simultaneously the gatekeeper that keeps neurodivergent people out of the workplace and the assistive technology that helps them thrive within it. This is not a coincidence — it reflects a deeper structural truth. AI tools designed with neurodivergent users in mind, or co-developed with neurodivergent communities, tend to be more flexible, multimodal, and accommodating. AI tools designed to optimize existing organizational hierarchies tend to replicate and accelerate the exclusions already present in those hierarchies. The difference is not in the technology itself, but in whose needs were centered when it was designed.

8. Existing Interventions and Their Limitations

In response to growing evidence of bias in AI hiring tools, a number of regulatory and industry interventions have emerged. While these represent meaningful progress, each carries significant limitations.

New York City Local Law 144, which came into effect in January 2023, was the first US law to require annual bias audits of automated hiring tools, mandate public disclosure of audit summaries, and notify applicants when AI is being used. This is a landmark intervention. However, its scope is limited to New York City, it does not specify what the audits must test for, and disability — including neurodivergence — is not explicitly named as a protected characteristic requiring audit coverage (JobsChat, 2025).

The European Union AI Act classifies hiring AI as a "high-risk" system, requiring conformity assessments, transparency, human oversight, and registration in a public EU database. This is broader in scope than NYC Local Law 144 and applies across member states. However, the Act's implementation timeline is extended, enforcement mechanisms remain untested, and — critically — it does not prescribe specific protections for neurodivergent candidates (JobsChat, 2025).

At the industry level, HireVue's 2021 decision to discontinue its facial expression analysis feature — after sustained criticism from researchers and civil liberties organizations — demonstrated that public pressure can produce change. However, HireVue and similar platforms continue to use audio analysis, response content scoring, and behavioral assessment, none of which have been retired. California's Civil Rights Department regulations, introduced in October 2025, represent the most comprehensive state-level oversight to date, establishing record retention requirements and expanded liability for discriminatory AI hiring decisions (Sovereign Magazine, 2025). Yet these remain piecemeal responses to a systemic problem.

The fundamental limitation of existing interventions is that they focus on auditing outputs rather than redesigning inputs. An audit can detect that a tool produces disparate outcomes; it cannot, by itself, address the underlying reason — that the tool was trained on neurotypical data, designed around neurotypical behavioral norms, and deployed without consulting neurodivergent communities.

9. Recommendations: Toward Neurodivergent-Inclusive AI Hiring

Addressing AI hiring bias against neurodivergent candidates requires intervention at multiple levels: the design of the tools themselves, the legal frameworks governing their use, and the organizational cultures into which they are deployed.

9.1 Inclusive Design and Participatory Development

AI hiring tools should be designed with neurodivergent communities as active participants, not passive subjects. This means including autistic, ADHD, dyslexic, and other neurodivergent individuals in the design, testing, and evaluation of tools from the outset. Training datasets should be actively diversified to include neurodivergent employees identified as high-performing by non-AI evaluation methods. Behavioral features that have no empirical relationship to job performance — eye contact duration, speech fluency, facial expressiveness — should be removed entirely from assessment criteria (Talent Trends, 2025).

9.2 Regulatory Reform

Existing regulations should be extended and strengthened to explicitly protect neurodivergent candidates. Bias audits mandated under laws like NYC Local Law 144 should be required to test specifically for differential outcomes by disability type, including neurodivergence. Federal-level disclosure requirements in the United States — currently absent — are urgently needed so that candidates know when AI is being used and can request accommodations accordingly. The EU AI Act's high-risk classification should be accompanied by specific guidance on neurodivergent inclusion.

9.3 Organizational Responsibility

Organizations that deploy AI hiring tools bear direct responsibility for their outcomes. Employers should "test drive" the tools they adopt — reviewing the questions asked, the tasks assigned, and the scoring criteria applied — before deployment (Bloomberg Law, 2025). Neurodiversity training for hiring managers and HR professionals is not a substitute for fixing biased tools, but it is a necessary complement. Research indicates that bias dropped 13% when participants completed implicit association tests designed to surface subconscious bias, and that 43% of senior leaders received neurodiversity training in 2025, up from 28% in 2023 (SmarterArticles, 2025). This progress is encouraging but insufficient — structural change requires more than awareness.

10. Conclusion

AI hiring tools promise objectivity and efficiency. What they deliver, for neurodivergent candidates, is a more sophisticated and less contestable form of the exclusion these candidates have always faced. By encoding neurotypicality into algorithms, by using behavioral proxies that stand in for neurological difference, and by operating in near-total opacity, these systems reproduce structural discrimination at scale — before a human ever enters the hiring process.

The sociological insight here is important: this is not primarily a technical problem to be fixed with better audits, though audits are necessary. It is a social problem rooted in the normalization of a particular kind of mind — one that makes sustained eye contact, speaks in smooth paragraphs, and performs personality in ways legible to a training dataset drawn from the past. Fixing it will require not just debiasing algorithms, but interrogating what we have decided to measure, why we measure it, and whose cognitive profile we have chosen to call "successful."

Future research should extend this analysis to non-autistic neurodivergence, apply intersectional frameworks, examine gamified assessments in depth, and urgently address the Global South — where AI hiring tools are expanding into contexts where even the basic infrastructure of disability rights does not yet exist.

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