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# Psychological Review

## **In Defense of the Double Empathy Problem Hypothesis: An Urgently Needed Alternative to Fallacies and Injustices in Mainstream Autism Research**

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## THEORETICAL NOTE

# In Defense of the Double Empathy Problem Hypothesis: An Urgently Needed Alternative to Fallacies and Injustices in Mainstream Autism Research

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In their theoretical note, “The Double Empathy Problem: A Derivation Chain Analysis and Cautionary Note,” Livingston et al. (2024) took a critical look at the double empathy problem hypothesis (DEPH). While they acknowledge that the DEPH offers promising insights, and while their critical note seems, at times, to be written with an eye to furthering and expanding DEPH, the main point they ultimately drive home is that DEPH has a “precarious theoretical and evidence base” and that, given this (allegedly) shaky foundation, applying DEPH “into real-world applications may have unintended and potentially harmful consequences for autistic people and those with similar conditions” (Livingston et al., 2024, p. 10). In this theoretical note, we take a critical look at Livingston et al.’s critique of DEPH, arguing that their warning note is problematic both from an ethical and philosophy of science point of view.

*Keywords:* double empathy problem, autism, empathy deficit hypothesis, neurodiversity

Empathy has been defined and operationalized in autism research in ways that are deeply contentious. Livingston et al. (2024) engaged with this issue in their 2024 theoretical note, “The Double Empathy Problem: A Derivation Chain Analysis and Cautionary Note,” by taking a critical look at the double empathy problem hypothesis (DEPH).<sup>1</sup> DEPH offers a relational account of the breakdowns in social interaction and mutual empathic understanding that are frequently experienced between autistic and allistic (nonautistic) people. Building upon Milton (2012), the focus within DEPH is on how differences in expressive styles and differences in perceptions of the “lifeworld” enact “a disjuncture in reciprocity between two differently disposed social actors” (p. 884). While DEPH has been

gaining traction within academic, therapeutic, and autistic self-advocacy contexts, this hypothesis still goes against the grain of much mainstream psychology, which widely endorses an empathy deficit hypothesis (EDH). EDH attributes breakdowns in autistic-allistic mutual empathic understanding to empathy deficits residing wholly within the autistic person (see Baron-Cohen, 2003; Frith & Happé, 1999). The scientific soundness and the ethical implications of EDH have been widely criticized by autistic experts by experience as well as academics from a wide range of disciplines (Botha, 2021; Chapman, 2023; N. P. Chown, 2014; Dinishak, 2016; McGeer, 2009; Stenning, 2020). The DEPH has been countered as a hypothesis that responds to EDH’s shortcomings.

Livingston et al. (2024) agreed that EDH suffers from certain limitations, particularly that it underappreciates the dynamic relational nature of social cognition.<sup>2</sup> Indeed, at times, their critical note seems to be written with an eye to furthering and expanding DEPH, while rightfully insisting on the continuous need to subject theories and hypotheses, including DEPH, to rigorous scrutiny. This, after all, is how theories are strengthened and refined. However, such a rightful plea for scrutiny is overshadowed by the main point that Livingston et al. drive home, which is that DEPH has a “precarious theoretical and evidence base” and that, given this (allegedly) shaky

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Caroline Bollen played an equal role in conceptualization, writing—original draft, and writing—review and editing. Janna van Grunsven played an equal role in conceptualization, writing—original draft, and writing—review and editing.

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<sup>1</sup> In contrast to Livingston et al. (2024), we add the H of hypothesis to the acronym to emphasize how DEPH and EDH are both hypotheses to theorize about the differences in autistic and allistic empathy.

<sup>2</sup> Presenting “social interaction [a]s inherently a two-way process,” they flag as methodologically suspect the numerous studies that “measure participants’ response to simple social stimuli (e.g., faces, anthropomorphized objects), without capturing social interactions between multiple agents.” (Livingston et al., 2024, p. 1)

foundation, applying DEPH “into real-world applications may have unintended and potentially harmful consequences for autistic people and those with similar conditions” (p. 10).

We wholeheartedly agree with Livingston et al. (2024) that one should be highly cautious and critically reflective of the potentially damaging real-life impacts of autism research on autistic people.<sup>3</sup> However, as we argue in what follows, we are worried that Livingston et al.’s critique of DEPH exacerbates, rather than mitigates, such damaging real-life impacts.

Our argument is developed in three steps. First, we argue that some of the conceptual and methodological accusations launched at DEPH by Livingston et al. (2024) apply equally, *if not more*, to EDH. This reveals that Livingston et al. applied a questionable double standard for scientific quality that unfairly disadvantages research on DEPH over EDH. Second, we show that the specific critiques that Livingston et al. leveled against the empirical evidence that supports DEPH reflect assumptions that are questionable from an epistemological and philosophy of science perspective. These assumptions obscure that while DEPH is in the early stages, it is at this point already better supported than the authors portray. Third, moving beyond the conceptual, methodological, and epistemological concerns raised in Steps 1 and 2, we highlight that significant ethical concerns have been raised about EDH and the damaging impact EDH has had on how autistic people are perceived, both within scientific and societal contexts. In failing to acknowledge this crucial context, we argue that the authors downplay not only the scientific but also the ethical importance of DEPH.

In sum, this commentary raises concerns about the potential impact of the one-sided and decontextualized arguments in Livingston et al.’s (2024) critical note. These arguments, we fear, could reinforce unwarranted confidence in EDH while a change is urgently needed—a change that DEPH provides.

### DEPH and EDH: Conceptual and Methodological Concerns

According to Livingston et al. (2024), the key to advancing psychological knowledge is the presence of a strong “derivation chain”—linking theoretical claims to empirical predictions from data (p. 2). We note that the need for such a chain, a claim advanced by Meehl (1990), is not without its critics (a point we come back to in the Empathy, Morality, and DEPH section). However, for now, it is worth attending to some of the characteristics of the derivation chain, since accepting its relevance is essential for Livingston et al.’s warning notes against DEPH. The foundation for a strong derivation chain is conceptual clarity, which, in the case of DEPH, concerns the concept of “empathy.” Once conceptual clarity is established, one can proceed to the identification and operationalization of “valid and reliable measurement tools” (p. 2). The derivation chain entails additional steps toward building psychological knowledge. However, the double standard invoked by Livingston et al. against DEPH (to the advantage of EDH) is particularly clear when it comes to these first two steps in the chain: (a) the conceptualization and (b) the measurement of empathy. Thus, we focus on these two steps here. While we agree with Livingston et al.’s suggestions that more research on and refinement of DEPH are desirable, we plea for all empathy research to undergo the same level of scrutiny. Such scrutiny is urgently needed, because the various concerns raised by the authors in the context of DEPH are not unique to DEPH approaches to empathy. Rather, as we summarize below, existing mainstream research on empathy and autism equally

suffers from weak conceptualizations of empathy, and there are significant measurement problems as well. The aim of this section is to point out the inconsistency in scrutiny against DEPH within the wider context of empathy research. Additionally, we begin to make a case for the need for an alternative to EDH.

Let us start with the conceptualization of empathy. The authors maintain that DEPH falls miserably short from the get-go, that is, with the first step in the derivation chain. In their words: “Despite encapsulating ‘empathy’ as the central focus, the DEP[H] talks loosely about ‘disjuncture [in reciprocity]’ and [breakdown in] ‘shared understanding,’ but not any well-recognized definitions of empathy” (Livingston et al., 2024, p. 3). Livingston et al. (2024) vehemently critiqued this conceptual ambiguity, arguing that it is “particularly puzzling given that a substantial body of research has gone to painstaking lengths to differentiate empathy from other closely related social cognitive processes, such as social reciprocity, emotion recognition, and theory of mind” (p. 3). Yet, this assertion itself can be considered somewhat puzzling. It is far from correct to suggest that the “substantial body of research” that they refer to offers one or even some “well-recognized definitions” of empathy that are widely agreed upon. In a systematic review of different conceptualizations of empathy in autism research, which Livingston et al. referenced in passing, no less than 31 different conceptualizations of empathy were found to be in use—diverging across 12 dimensions (Bollen, 2023a; for similar findings on the conceptualization of empathy in psychology research, conducted outside the autism context, see Cuff et al., 2016). Beyond these systematic reviews, concerns regarding conceptual ambiguity around empathy, particularly in the context of autism, are widely discussed and shared (Fletcher-Watson & Bird, 2020). In light of this research, which is known to the authors, additional claims about empathy, made by the authors, stand out as surprising. For instance, they present as uncontroversial the idea that empathy is “distinguishable from initial identification of another person’s emotion and understanding of their non-affective mental states” (Livingston et al., 2024, p. 4). In fact, this claim is contradictory to various accounts of empathy that are currently in use and points toward important dimensions of disagreement around empathy (Bollen, 2023a; Cuff et al., 2016). Thus, while the authors ground their critique of DEPH in its allegedly distinctive conceptual unclarity, they appear to be overlooking existing conceptual issues in mainstream empathy research that have already been raised in existing research. While it is true that they acknowledge some of this existing research (Bollen, 2023b), they do not discuss or engage with the implications of this research for their own argument against DEPH. This obscures a vital point: that the first step in the derivation chain is as shaky in “mainstream” psychology research as it is in DEPH research.

Furthermore, as Livingston et al. (2024) themselves warned, “without a sound concept and theory as a foundation, there is a domino effect on measurement and the rest of the derivation chain” (p. 4). Indeed, when it comes to how empathy is measured in the context of EDH research, we encounter precisely such problematic issues, issues that are, again, not acknowledged by Livingston et al. While, as we just discussed, conceptualizations of empathy vary in many

<sup>3</sup> We have both argued this elsewhere (see [redacted]). We note that this is also very much in line with how Milton (2012) positions DEP within the landscape of clinical and therapeutic practices around autism: “It is the view of this author that there is an increasing complacency around the idea that lead professionals and practitioners have a good understanding of what ‘good autism practice’ entails; *for me this is an ongoing imperfect process of interaction and should never be seen as a given*” (p. 886, our italics).

respects, empathy is typically thought of as a first-person experience, had by one person, directed at the experiential life of another person. This first-person aspect creates a challenge for creating standardized or generalizable assessment strategies. As a result, methods to “measure” empathy typically must rely on interpretations of expressions and behavior, both by and from research subjects (for instance, pertaining to facial expressions taken to convey empathy). However, these methods often rely on normative assumptions about behavior and expression as related to inner experience (e.g., making eye contact indicates engagement with the other). Crucially, as autism is associated with atypicalities in exactly this domain, it cannot be assumed that empathy assessments designed by and for allistic people that use allistic behavioristic markers as indicative of empathy are appropriate to use to identify and measure autistic empathy. Unfortunately, this is widely overlooked in research on empathy and autism (Bollen, 2023b; Harrison et al., 2022; Stenning, 2020). With most widely used and available methods, it is difficult for researchers to appropriately assess autistic empathic experience (ironically, this is a perfect example of the DEPH). As Harrison et al. convincingly argued in their analysis of widely used and “accepted” empathy questionnaires (such as the Empathy Quotient), such methods may be more aptly understood as testing for autism rather than for empathy. As such, mainstream empathy research in the autism context is often guilty of circular reasoning and of applying a double standard for identifying empathy, which in turn falsely provides empirical support for the EDH (Bollen, 2023b; N. Chown et al., 2020). These habits of assessing empathy based exclusively on neurotypical forms and norms of behavior and expression and of failing to make theoretical room for autistic expressions of empathetic experiences lead to the *neurotypical gatekeeping of empathy* in psychology research (Bollen, 2023b). Autistic (expressions of) empathetic experiences are systematically overlooked or invalidated as narrow operationalizations and measurement strategies exclude their very possibility a priori (see Stenning, 2020, for a relevant history of how the EDH is dogmatically upheld in academic research).

This history of questionable practices and problems at the levels of conceptualization and measurement, in the context of psychology research on empathy and autism, provides a much-needed context for assessing the importance and value of DEPH as an alternative to EDH, an alternative that seeks to make scientific room for and sense of autistic empathetic experiences *as well as* allistic ones. Dogmatic thinking, circular reasoning, and other fallacies should be avoided in academic research. Moreover, scientific research should be responsive to pressing counterevidence that challenges organizing concepts and measurement methods. In the case of empathy and autism, this counterevidence has been significant, with many autistic people vehemently resisting the scientific characterization of their lives as devoid of or deficient in empathy (Bollen, 2023b; Fletcher-Watson & Bird, 2020; Stenning, 2020; Welch et al., 2022). These testimonials are no longer “anomalies” that EDH can solve or explain away (Botha, 2021; Kuhn, 1962). As such, we believe there are sufficient conceptual and methodological reasons to raise serious skepticism toward empirical support for EDH.

Letting go of EDH as the dominant frame through which to understand empathic challenges in autistic–allistic interactions does not necessarily undermine or undo valuable insights that can be drawn from the substantive body of research that was performed under this hypothesis. Such research has certainly enabled a robust teasing apart of specific profiles of social abilities and challenges.<sup>4</sup> It does, however, ask for a reinterpretation of these insights from a different theoretical lens. As historian and philosopher of science Thomas Kuhn might say,

we seem to have arrived at a point where research on autism and empathy can no longer follow the path of “normal-scientific research” by continuing to operate within the EDH framework, making piecemeal adjustments and improvements to it; instead, it is time to take seriously that an altogether different paradigm, incommensurable with EDH’s organizing assumptions and commitments, must be embraced (Kuhn, 1962). This paradigm could very well be represented by DEPH.

### Empirical and Theoretical Support of DEPH

Of course, the need for an alternative to EDH does not necessarily mean that this alternative needs to be DEPH. Livingston et al. (2024) might be right to suggest that the problems with DEPH’s derivation chain are, at present, too large for DEPH to count as a viable evidence-based alternative. However, we believe that the state of empirical and theoretical support for DEPH is more convincing than the picture painted by the authors. In particular, we take issue with how Livingston et al. presented and discredited empirical work in the context of DEPH.<sup>5</sup> Below, we note some questionable epistemological moves and assumptions.

A key hypothesis of the double empathy problem (DEP) is that breakdowns in empathy, or mutual understanding, occur less frequently in contexts of autistic–autistic interaction. Livingston et al. (2024) argued that DEPH is lacking in empirical support by appealing to some studies that suggest challenges in autistic–autistic empathy. However, such findings do not *necessarily* contradict DEPH. Autistic people grow up as a minority in a social environment that supports, teaches, and reinforces certain norms of behavior and expression (Hillary, 2020). As such, masking efforts and internalized allistic norms of expression and communication are also prone to shape autistic–autistic interaction contexts. Moreover, autistic and allistic people alike get fewer opportunities to practice, develop, and refine empathic attunement to idiosyncratic ways of communicating (N. P. Chown, 2014; van Grunsven, 2020). This points, again, to a crucial philosophy of science matter: It is important to recognize that empathic experiences themselves are not measured, but that indirect measures are used—including behaviors that are taught, developed, and situated in a sociocultural context. This complex sociocultural dimension should not be overlooked when interpreting empirical results, designing such studies, and further theorizing (N. P. Chown, 2014).<sup>6</sup>

<sup>4</sup> We thank an anonymous reviewer for urging us to make this valid point.

<sup>5</sup> Meanwhile, they also appear to ignore empirical evidence that discredits EDH. Gernsbacher and Yergeau (2019), for instance, made an extensive case for the empirical shortcomings of the hypothesis that autistic people lack a properly functioning theory of mind—a hypothesis that is intimately interwoven with EDH. However, their study is referenced by Livingston et al. (2024) *not* as a critique of EDH’s scientific empirical validity (and harmful societal implications) but as a study that “invokes DEP to explain complex results on social cognition that are difficult to interpret” (p. 745). This is emphatically a striking misrepresentation of Gernsbacher and Yergeau’s point (the DEP is only mentioned once in that article).

<sup>6</sup> The leg of DEPH that allistic people are challenged with empathizing with autistic individuals is acknowledged as supported by the authors. Interestingly, here too it is important to keep in mind the sociocultural component of allistic people having less opportunity to practice and cultivate cross-neurotype empathy. Perhaps allistic people would, with more opportunity to practice, find it easier to empathize across neurotypes, but as of yet, we simply do not know. And we should be careful in perpetuating the double standard, again, by granting allistic people the benefit of the doubt, while not doing so for autistic people. Interpreting results of studies as support for claims on who is and who is not empathetic is a morally and politically laden activity. Instead, research efforts should perhaps primarily focus on understanding what can *support* people in the challenges of empathy across differences.

This means that a nuanced critical attitude is required when DEPH is faulted for its alleged inability to successfully connect its conceptualization of empathy “with *the currently available* methodological approaches and empirical data” (Livingston et al., 2024, p. 2, our italics). Of course, the extent to which one considers DEPH to be empirically (un)supported depends, in part, on one’s conception of what counts as robust empirical evidence (more on this below, when we discuss the significance of qualitative empirical evidence). When it comes to “currently available” methodological approaches and empirical data, we highlight the need to be careful in how these are taken up and built upon, especially given the abovementioned concerns of bias (Bollen, 2023b; Botha, 2021; Harrison et al., 2022; Komeda et al., 2015).

With this in mind, we also want to highlight that findings from qualitative studies provide a basis for empirical support for DEPH and counterevidence against EDH (such as Cheang et al., 2025; Crompton et al., 2020; De Jaegher, 2023). For instance, autistic testimonials showcase how empathic exchanges can “flow freely and easily” in autistic–autistic interaction contexts (Sinclair, 2012). The notion of free-flowing versus breakdown-prone empathic exchanges that such testimonials point at can be theorized further by adopting methods and conceptual tools such as participatory sense-making (De Jaegher & Di Paolo, 2007; van Dijk & Oral, 2025). Indeed, despite Livingston et al.’s (2024) claim that DEPH lacks engagement with insights from the cognitive sciences, research linking DEPH to enactive research in embodied cognitive science already exists (e.g., De Jaegher, 2023; van Es & Bervoets, 2022; van Grunsven & Roeser, 2022; Van Huizen et al., 2023). Furthermore, the authors overlook relevant philosophical work on empathy and the DEPH. For example, the work by Bollen (2023b), which is referenced but not engaged with by Livingston et al., sets out a theoretical account of empathy that is compatible with DEPH’s broad and open conceptualization of empathy.

Livingston et al. (2024) suggest that qualitative research is not enough to support DEPH and that the lack of quantitative support counts as a reason to question the hypothesis and even critique its value as a theoretical construct. They appeal to Meehl’s “Why Summaries of Research on Psychological Theories Are Often Uninterpretable” as a theoretical foundation for their critique of DEPH. Yet, as Smaling (1992) already argued, the attempt to align psychology with the natural sciences (which Meehl considered “more successful” by his standards) overlooks different forms of theory formation and testing. Smaling wrote,

I propose to say that scientifically meaningful theories in the so-called soft areas are to be tested differently rather than saying that they cannot be tested at all. This proposal can be sustained, first, by the literature on the philosophy (or theory) of the social sciences (psychology included), which must not be restricted to the empirical analytical branch of philosophy of science, but extended to the so-called interpretative stream, and, secondly, by the literature on qualitative methodology for the social sciences. Meehl does not mention either of them. (p. 3)

We share this critique of the conviction that a theoretical framework needs to allow for quantitative empirical testing for it to be valid or useful. In committing themselves to this view, the authors diminish the value of qualitative research data, such as data retrieved through autistic testimonies, that lend support to DEPH. Indeed, given the variability in how it is experienced and expressed, as well as its normative significance, the concept of empathy might be too

complex and sensitive to be reduced to quantitative measures at all<sup>7</sup> (Bollen, 2023b). Certain phenomena demand creative and flexible conceptualization rather than rigid, steadfast delineation in order to be brought into view comprehensively (Dinishak, 2016, p. 13). Acquiring a comprehensive view of people’s actual lived experiences, for example, through phenomenological or ethnographic research, is arguably essential when it comes to informing and sharpening our understanding of empathy and how it is experienced, expressed, and learned in a neurodiverse world. Indeed, some might argue that the priority given by Livingston et al. (2024) to Meehl’s derivation chain, without making robust room for empirical inductive qualitative research to be incorporated from the start, is at odds with a scientifically grounded and responsible approach to autism research (Pratt & Bonaccio, 2016).

When it comes to such an emphatically morally laden concept as that of “empathy” (a point that we will unpack in the Empathy, Morality, and DEPH section), the ability to place and justify the concept within the complexity of its ethical and social significations is more important than theoretical simplification and artificial boundary setting for the sake of academic research. That said, quantitative research can provide insights into underlying mechanisms or related constructs. For example, there is neuroscientific research that showcases similarities and differences in the processing of autistic–autistic, typical–typical, and autistic–typical interactions (Feng et al., 2025; Komeda et al., 2015; Moreau et al., 2024). The dialectical misattunement hypothesis “describes the social difficulty experienced by an autistic person as the misattunement between 2 accumulated prediction and action” (Feng et al., 2025, p. 2). Empirical support of the dialectical misattunement hypothesis provides insight into neural mechanisms underlying the reciprocal challenges in cross-neurotype interactions. The dialectical misattunement hypothesis and DEPH are compatible hypotheses, existing on different levels of abstraction.

While DEPH is certainly still at the beginning stages of its robust development (which is how new theories start), it provides a promising alternative to EDH. As a hypothesis, it seems to be more epistemically helpful in the sense that it better allows us to make sense of people’s experiences (of both allistic and autistic empathic experiences) in our collaborative quest for knowledge in academia. Yet, even if one would consider DEPH and EDH to be on equally shaky grounds in theoretical refinement and empirical support, there still is a crucial difference between the two in terms of societal and ethical impact, which we will turn to now.

## Empathy, Morality, and DEPH

In the previous two sections, we discussed and critiqued the epistemological and scientific arguments leveled against DEPH by Livingston et al. (2024); arguments focused on the conceptual, methodological, and empirical soundness of DEPH. In this section, we home in on a different type of critique raised by Livingston et al. against EDH, namely, an ethical one. Specifically, they warn that the weak scientific basis on which DEPH is built can lead to therapeutic and educational practices that are harmful for autistic people.

<sup>7</sup> For this reason, we left out various quantitative studies that suggest counterevidence to EDH in our argumentation. We caution against reductive empathy conceptualizations, operationalizations, and research methods, regardless of the hypothesis the study supports.

Against this warning note, we counter that the ethically disconcerting upshots that Livingston et al. see as a *potential* worry about DEPH have in fact already been in full effect when it comes to EDH. When we are theorizing autistic people as deficient in (or altogether devoid of) empathy, which is what EDH does, it is vital to bear in mind the dehumanizing effects of such theorizing (Botha, 2021; Dinishak, 2016). As autistic psychologist Monique Botha (2021) strikingly put it:

I am not the first, nor will I be the last autistic who struggles with how dehumanizing, objectifying, or alienating autism research is. ... To be involved in autism research when you are autistic, is to constantly experience the aggression of a field which has yet to come to terms with its own ableism. It is not only to face an ableist academia, but one that fails to acknowledge that there is even a problem. Some academics (both autistic and not) have written about the dehumanizing nature of the autism academy ... but more widely, there is an astounding lack of awareness that we are speaking or writing about, and constituting people—words, descriptions, and constructions of people will have wider consequences. (p. 7)

Empathy is a concept that carries meaning well beyond the narrow bounds of psychology labs. Throughout society, empathy is held as a virtue (to call someone empathetic is to praise their character; to call someone unempathetic is to blame or insult them). *Empathy is thus a morally laden normative concept—regardless of the descriptive behaviorist meanings ascribed to it within a small set of academic disciplines.* Even when empathy is defined in some specific non-moral way in a certain research project, academic research does not exist in a vacuum, and our research findings impact society. As such, debating how to best conceptualize and research empathy is not merely an academic quibble but an endeavor with crucial moral, societal, and political implications. *How we define and measure empathy, then, is not only a matter of scientific quality (and integrity) but also a matter of social and epistemic justice* (Bollen, 2023b).

As countless first-person autistic testimonials underscore, the EDH-backed narrative that autistic people are fundamentally deficient empathizers (in the sense that they cannot adequately connect with or relate to other people as subjects who occupy their own distinctive perspective onto the lifeworld) is patently false (see Lawson, 2001; Sinclair, 1993, 2012; Stenning, 2020; Welch et al., 2022). Philosopher Victoria McGeer (2009) had rightfully warned that EDH can lead to a scientifically questionable myopic practice of discrediting these testimonials, where

the very kind of reports that might encourage some serious rethinking of the ways in which a theory like ... [EDH] misleads us as to the thickness of autistic mental life are, by virtue of that self-same deficit account, denied any real credibility. (p. 527)

To have one's experiences systematically discredited and silenced by those who are often seen as the "real" authorities on autism constitutes, in itself, an epistemic harm that can gravely impact upon one's well-being. But the harms done to autistic people via an EDH-driven framing of autism hardly stop there. As an outlook on autism that discredits autistic experiences and that frames autistic behaviors and expressions as problems requiring intervention, EDH directly contributes to a social environment in which autistic people and allistic people are continually misperceiving and misunderstanding one another; in other words, EDH contributes to the DEP. Crucially, though, these breakdowns in empathy are marked by a noteworthy pernicious asymmetry, with autistic people primarily

bearing the burden of these breakdowns (after all, EDH theorizes them away as deficient in empathy, needing invasive forms of cure and treatment, whereas allistic people are confirmed as empathy experts; van Grunsven, 2020). Livingston et al. (2024) flagged that "several DEP proponents have alluded to the possibility that the DEP directly contributes to mental health problems in autism (e.g., Hume & Burgess, 2021; Milton et al., 2023; Mitchell et al., 2021)" (p. 9). While deeming this an "interesting idea" that "warrants investigation," Livingston et al. countered that "there is currently no causal evidence to support this assertion" (p. 9).

This claim is presumably made in the spirit of scientific rigor and caution. To us, it is a claim divorced from the wider sociohistorical context that autistic people have had to navigate. In the political sphere, the dehumanizing idea that an autistic person is an unempathetic "dead soul in a living body" has been presented as uncontroversial and as backed by scientific evidence (Walter Spitzer, cited in Silberman, 2015, p. 431). The idea that autistic people lack empathy contributes to a negative outlook on autism, because being unempathetic is considered problematic. This has been used to justify attempts to cure or prevent autism, harming the actual individuals this is supposed to help (Bovell, 2020). Consider, for instance, seemingly casual headlines in popular science magazines lauding the potential for gene-editing research to "remove autistic traits," as they are associated with deficiency (see Spear, 2018). Or consider the prevalence, in therapeutic contexts, of Applied Behavioral Therapy (ABA), which seeks to correct for the socially "deficient" behaviors of autistic people; ABA, which sometimes includes shock therapy and which is recommended as an "intensive" intervention to be applied at a minimum of 25 hr a week (Foxy, 2008), is still widely employed. This is done even though the damaging effects of ABA on autistic people's self-esteem have been raised repeatedly by autistic self-advocates, who draw disconcerting links between ABA and high suicide rates (Botha & Frost, 2020; Shew, 2023, Chapter 5). EDH has contributed to this sociohistorical context rather unselfconsciously by upholding a narrative that autistic people miss a trait (empathy) that is often seen as essential to being fully human (Chapman & Carel, 2022). This line of reasoning, which excludes an entire group of people from a concept that is considered central to human flourishing and morality, cannot be divorced from widespread efforts to cure autism, often with drastic and harmful consequences.<sup>8</sup> Existing counterevidence questions this impactful narrative. DEPH seeks to thematize and theorize observed challenges in empathy between neurotypes with an eye toward improving both scientific and societal practices surrounding the perception of autistic people.

As a research community, we need to acknowledge and respond to the impact of the term "empathy" and, correspondingly, of the term "empathy deficit." As empathy gets associated with morality in practice, EDH upholds the belief (intentionally or not) that autistic people are morally inferior.<sup>9</sup> Theoretical and metaethical acrobatics are performed to defend autistic morality within this framework (e.g., by differentiating between affective and cognitive empathy in

<sup>8</sup> For example, Schrandt et al. (2009) and Sivaraman (2017) presupposed EDH in their presentations of ABA as potentially effective routes for mitigating autistic children's alleged empathy deficits.

<sup>9</sup> As mentioned before, it is naive, at best, to argue that research findings do not make their way to other academic disciplines and have an impact outside academia.

varying ways, Aaltola, 2014; Zalla et al., 2011, or by arguing autistic people “make up” for a lack of empathy by other qualities, Baron-Cohen, 2002, or even by challenging the moral value, Prinz, 2011, or necessity, Kennett, 2002, of empathy to start). But, given

- the many conceptual and methodological flaws in empirical support of EDH (DEPH and EDH: Conceptual and Methodological Concerns section)
- the existence of counterevidence to EDH and support for DEPH (Empirical and Theoretical Support of DEPH section), and
- the harmful narratives and practices that EDH as a theoretical frame facilitates and upholds (for which DEPH can provide more inclusive alternatives; Empathy, Morality, and DEPH section)

would it not simply make *more* sense to start moving on from EDH and move forward with DEPH as our working hypothesis or organizing paradigm?

### Concluding Remarks

Livingston et al. (2024) seemed to acknowledge the need for an inclusive approach to the further conceptualization of empathy, maintaining that, when it comes to developing consensus around a given concept, “Inclusive approaches that incorporate a diverse range of individuals, across the widest possible range of expertise, offer the best chance of reformulating a solid foundation for the DEP” (p. 8). However, what we have argued here is that the way in which they present their cautionary tale against DEPH threatens to undermine precisely this goal.

Livingston et al. (2024) argued that DEPH is on shaky foundational grounds and potentially ethically harmful because it fails to align with Meehl’s derivation chain approach to doing research in psychology. While we disagree with the very premise that Meehl’s derivation chain sets the bar for what counts as robust autism research in psychology, what we have also shown, by focusing on the first two steps of the derivation chain, is that, if one does accept this as a premise, the same accusations follow with respect to EDH, and if both DEPH and EDH are in that sense on equal footing, we believe a decisive factor speaking in favor of DEP is ethical in nature: inviting a more respectful, less dehumanizing stance toward autistic people and their lived experiences. Rather than working with and teaching EDH and the biased conceptualizations and methods that underwrite it to our future generation of researchers, we, as a research community, should acknowledge that empathy has a moral connotation, recognize that it is too complex to be reduced to quantitative methods, and develop practices that are aware of and open to neurodiversity in methodologies and theories. As argued in this commentary, there is reason enough (scientifically and ethically) to move forward with DEPH as a reasonable alternative to EDH. We can and should identify areas of improvement when it comes to research on DEPH, while appreciating its indispensable value in providing an urgently needed alternative to EDH in the present.

Moving forward, we should acknowledge empathy’s normative significance by using the term only with a sensitivity to its moral connotation. For example, Bollen (2023b) proposed to conceptualize

empathy as a virtue instead of a trait or experience. Such a morally sensitive understanding of empathy can be aligned with research on DEPH, which acknowledges both the challenge and importance<sup>10</sup> of extending empathy across neurotypes. Furthermore, the open and broad understanding of empathy in DEPH in the sense of how it can be experienced and expressed speaks to its benefit in this regard, as a fair concept of empathy needs to be able to facilitate diversity in humans and their unique relationships (Bollen, 2023b). This, again, highlights that the complexity and ethical dimensions of social interactions require careful qualitative research approaches.

What does this mean for the future of autism research? First, we suggest that researchers who study phenomena related to empathy and who do not wish to imply any normativity or moral connotations may opt to use less value-laden terms. Concretely, Bollen (2023a) developed a list of 12 questions, based on a systematic review on the meaning of the term “empathy” in autism research, that researchers can use to reflect on what they exactly mean with “empathy” amid the 31 different phenomena the concept currently is being used to refer to. From there, researchers can reflect on whether empathy is indeed the appropriate term to use or not.

In a slightly different vein, Botha, whose critical reflections on autism research are notably absent from Livingston et al. (2024), argued for the need to altogether abandon claims to objective value-free research in psychology. Psychology as a field is inevitably value-laden and in the business of framing people (e.g., as deficient); thus, she pleads, “All researchers, please, engage with your own values, interrogate them, unpick them, doubt yourself, acknowledge your fallibility, acknowledge your mistakes, apologize. ... There is no greater responsibility than constituting people—and we as psychologists do this” (Botha, 2021, p. 9). Similar to Bollen, Botha argued that taking on this responsibility involves a “reflective,” “rigorous,” and “transparent” way forward in autism research, which, she shows, can provide guidance in pursuing both quantitative and qualitative psychology (2021, p. 7). Reflexivity, along with humility, is also one of the five principles for engaging in respectful participatory autism research and design, as proposed by Williams et al. (2023). While touching on this work does not yet provide a detailed roadmap for how to move forward in autism research, we hope it at least provides valuable landmarks—landmarks that, to conclude with Livingston et al., can help us to avoid “careless” translations of autism research “into real-world applications,” with “unintended and potentially harmful consequences for autistic people and those with similar conditions” (Livingston et al., 2024, p. 10).

<sup>10</sup> Bollen argued that attempting and learning to do so are praiseworthy, and both autistic and allistic people should be praised and blamed similarly, which is currently often not the case.

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