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What The Double Empathy Problem is (and Is Not)

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Abstract

We reassert the Double Empathy Problem (DEP) as a sociological account of autistic-non-autistic (and more broadly, between individuals with differing dispositions) interaction, rather than a social-cognitive theory of autism. The DEP reframes communicative breakdowns as relational rather than as solely due to autistic deficits, countering harmful deficit-based theories of autism that rest on weak evidence. Evaluating the DEP solely through positivist social-cognitive frameworks risks undermining the DEP's original epistemological stance as a sociological and critical lens. We clarify the probabilistic framing of the DEP to emphasize that misunderstandings between autistic and non-autistic people shift with context and power. This framing invites applied inquiry into methods for increasing mutual understanding. Importantly, there is growing evidence in favour of such a probabilistic DEP, whereas there are serious validity and evidentiary concerns surrounding traditional deficit-based social-cognitive theories. By centering autistic perspectives, we argue that the DEP can promote ethical research agendas that integrate rigorous, context-sensitive methods to advance a relational, power-aware autism science that benefits the autistic community on its own terms.

Keywords: Double Empathy Problem, Autism, Neurodiversity, Epistemology

Community Brief

“Why is this topic important?”

Autistic people are often described as having “social deficits,” but many misunderstandings between autistic and non-autistic people come from both sides. The Double Empathy Problem (DEP) shows that communication difficulties are relational and shaped by differences in experience, expectations, and power, not individual deficits or problems within the autistic person. Understanding this helps challenge stigma, reduce blame placed on autistic people, and promotes more respectful and equitable relationships.

“What is the purpose of this article?”

This article explains what the DEP is and is not, clarifies common misunderstandings about the theory, how it is studied, and its application, and shows why it should be understood as a sociological and relational framework rather than a biological or cognitive explanation of autism. It reviews existing evidence, discusses best practices for research, and argues for applying DEP-informed ideas in education, clinical work, and policy.

“What personal or professional perspectives do the authors bring to this topic?”

The authors bring a combination of lived experience, research, and long-standing expertise to this work. The authorship team includes autistic and non-autistic scholars and researchers who have originated, developed, and led theoretical and empirical work on the Double Empathy Problem, as well as scholars with extensive experience studying autistic–non-autistic interaction, ableism in autism research, and participatory and neurodiversity-affirming approaches.

“What is already known about this topic?”

The DEP explains that misunderstandings between autistic and non-autistic people happen because of people’s different social backgrounds, expectations, and ways of communicating, not because autistic people lack empathy or sociality. Studies have shown that:

- autistic-autistic interactions can be just as effective as non-autistic-non-autistic interactions,
- mixed (autistic-non-autistic) interactions tend to be the most challenging, and
- traditional social-cognitive theories do not reliably predict how autistic people actually interact in real life or how autistic people report their experience.

It is also known that autism research has a long history of pathologizing autistic people and often overlooks autistic perspectives and qualitative evidence.

“What do the authors recommend?”

We recommend:

1. Understanding, researching, and using the Double Empathy Problem as a framework about relationships and social contexts, not as a theory that places communication problems inside autistic people.
2. Centering autistic perspectives and treating autistic people as equal partners in research and communication.
3. Using fairer and more rigorous research practices, including clearly defining comparison groups and studying social interactions as they occur in real life.
4. Applying ideas from the Double Empathy Problem in practice now, rather than waiting for a higher level of evidence than is required for other autism theories.

“How will these recommendations help autistic adults now or in the future?”

These recommendations can:

- reduce stigma by challenging the belief that autistic people are solely responsible for communication difficulties;
- validate autistic adults’ lived experiences of misunderstanding and bias;
- support more respectful and effective communication between autistic and non-autistic people;

- encourage services, clinicians, and educators to avoid harmful practices and instead build mutually supportive relationships; and
- influence future research and policy to be more just, inclusive, and grounded in autistic realities.

What the Double Empathy Problem Is (and Is Not)

In recent years, the “Double Empathy Problem” (DEP) has gained increasing attention within both academic scholarship and public discourse as an alternative to longstanding deficit-based models of autism (Milton et al., 2022). Rather than viewing social difficulties as intrinsic impairments located solely within autistic individuals, the DEP reframes these challenges as mutual, interactional mismatches shaped by differing dispositions toward social interaction, lived experiences, and social expectations. This perspective strongly resonates with the growing neurodiversity movement and participatory research traditions that seek to challenge historically pathologizing narratives about autism (Milton et al., 2023).

However, with the rapid increase in research in this area, some researchers have challenged the DEP's theoretical coherence, empirical support, and translational readiness (e.g., Livingston et al., 2025). While we agree that clarifying concepts and accumulating robust evidence are valuable goals, the push for empirical support can lend towards a misrepresentation of the DEP's epistemological foundations, prematurely undermining its value for reshaping autism science and practice.

The Double Empathy Problem Is a Sociological, Not Social-Cognitive, Framework

The DEP, as originally conceptualized by Milton (2012), arose from autistic scholarship, critical disability studies, and sociological frameworks which were critical of individualizing, generalizing, or normalizing theories of autism (Kapp, 2019). The DEP rejects the notion that communication breakdowns are solely due to autistic social deficits. Instead, it emphasizes that both autistic and non-autistic people may struggle to understand one another due to differences in sociality, cognitive dispositions, social experiences, and cultural expectations.

The DEP is not a social cognitive theory of autism; instead it is a sociological lens for understanding social interaction between differing people that provides a critical framework for understanding shortcomings within existing research. This lens invites researchers to acknowledge that breakdowns in communication are mutual instead of being solely attributable

to the characteristics of autistic people, given communication is inherently multi-party. Although the DEP has been drawn into broader ontological debates about the nature of autism (e.g., Kourti, 2021), it does not position itself as a social cognitive theory designed to explain autism ontologically. Its core contribution focuses on reframing social interaction as a bidirectional, context-dependent, and situated process. It aims to explain some of the breakdown in communication, especially regarding the difficulties non-autistic people report experiencing in interactions with autistic people. While this paper focuses on autistic and non-autistic interactions, the double empathy problem likely also extends to dynamics involving other forms of neurodivergence (e.g., ADHD, schizophrenia, etc.) and intersecting identities (e.g., race, gender, class, etc.). However, these interactions are not symmetrical: they are embedded within social power relations in which certain groups, namely neurodivergent people, are positioned as deficient in social interaction. Misunderstandings can therefore also arise from unequal pressures to conform and the differential consequences of interactional “failure”.

It is named the “*Double Empathy Problem*” partly as a critique of social cognitive theories of autism which argue that there is a distinct social-communication deficit in autistic people that prevents autistic people from inferring the minds of others, rendering autistic people as less proficient in cognitive empathy. Indeed, Milton (2012) presents the DEP as part of a critique of “cognitive behavioural discourses” that fail to recognize the inherent subjectivity of attempts to understand social reality. Claims arising from such social cognitive theories have included that autistic people are unreliable narrators to their own minds or experiences (Lombardo et al., 2007; Lombardo & Baron-Cohen, 2011), incapable of experiencing community (Barnbaum, 2008) especially with other autistic people (Barnbaum, 2008), lacking in group-specific integrity (Russell, 2012), lacking in empathy (Baron-Cohen & Wheelwright, 2004), and incapable of culture, only akin to that of great apes (Tomasello et al., 2005). Amongst autistic people, empathy-based conceptualizations are critiqued particularly for their disconnection from the everyday experiences of autistic people. In addition, they prompt the dehumanization and

pathologization of autistic people by denying core human nature traits– thereby displaying a shocking lack of empathy towards autistic people from non-autistic scholars (Botha et al., 2020).

Unlike most social-cognitive theories of autistic people, the DEP arose from the autistic community. It centers the value of insider knowledge in understanding autistic people and social interaction, and shows how community knowledge can be fertile ground from humanizing epistemologies of autistic people's experiences whilst still acknowledging that mutual breakdowns do seem to occur. The power of the DEP also lies in its respectful framing; it acknowledges that communicative breakdowns occur without pathologizing either party, offering a nuanced and humanizing alternative to theories that locate dysfunction solely within autistic individuals. While the vast majority of autism research focuses on genetic and biological mechanisms (Pellicano, Dinsmore & Charman, 2014; Den Houting & Pellicano, 2019), the DEP challenges the reduction of social communication or interactions to a set of genes, traits, biological processes, or even behaviors, focusing instead on the ways in which outcomes in social communication are the results of complex interactions between social partners in social settings. This moves the subject of "autism" into a social and sociological realm, and requires understanding autistic people as social agents who experience subjectivity and respond to social actions, instead of positioning autistic people as objects of scientific interest alone.

While the (tongue-in-cheek) name "*Double Empathy Problem*" positions empathy at the forefront as a form of resistance to the dehumanization of autistic people by researchers, the DEP is more broadly relevant to concepts which predict successful, or enjoyable social communication between people, as well as the salience of characteristics which are seen as desirable in interaction partners. Livingston et al. (2025) argue that the term "empathy" is misused in the DEP literature because it does not align with operationalizations in cognitive neuroscience, yet this itself is a matter of perspective. These definitions have serious ongoing challenges with conceptualization in their own right (Bollen, 2023; Cuff et al., 2016; Fletcher-Watson & Bird, 2020; Harrison et al., 2022; Olderbak & Wilhelm, 2020; Stellar & Duong, 2023),

and this critique neglects the rhetorical and political function of the term “empathy” within the DEP. It is used in this context as a deliberate inversion of longstanding deficit narratives in autism science that have treated autistic people as lacking core human qualities, by situating empathy as something which is cultivated mutually. By naming the problem “*double empathy*,” the theory reclaims and politicizes the term to illuminate the reciprocal and often asymmetrical nature of social misunderstandings. The call is not to measure empathy as affective resonance or theory of mind, but to rethink the normative standards that define some ways of relating as socially competent and others as deficient.

In contrast to traditional autism research that has long ignored first-hand accounts of autistic social experiences (Botha & Cage, 2022; Milton & Bracher, 2013), the DEP re-centers autistic people as equal partners in social communication and interaction, making the claim that all partners within an interaction are responsible for its processes and outcomes. This means social interaction is constructed not only by the combination of individual traits of the interacting partners, in interaction with one another in dynamic constellations, but also takes place within the confines of social and political power, including in determining what kinds and ways of social communication and interaction are considered “normal,” “impaired,” “abnormal” or “desirable” (Bottema-Beutel, 2024). In contrast, classical social cognitive theories consider social interaction to be solely the result of the cognitive capacities of individual actors and posit that autistic people either pass, fail, or “hack” particular cognitive processes (Livingston et al., 2019) moralizing and bench-marking perceived cognitive traits as trajectories of normality. The years following the articulation of the DEP have seen an increasing number of studies investigating communication between autistic and non-autistic people (Crompton et al., 2025; Morrison, DeBrabander, Jones, Faso, et al., 2020; Usher et al., 2018), but some of those studies still appear to conceptualize breakdowns as being largely due to autistic deficits (e.g., Koehler et al., 2022; Koehne et al., 2016; Wadge et al., 2019). In addition, despite decades of research and investment, social cognitive theories have repeatedly failed to predict real-world social

outcomes for autistic people (Bottema-Beutel et al., 2019; Morrison et al., 2020; Sasson et al., 2020).

In sum, the DEP is not an explanation of individual-level cognitive mechanisms but a framework for understanding relational, interactional mismatches. Unlike traditional social cognitive models, it does not seek to locate social difficulties within presumed impairments in mental state attribution, empathy, or perspective-taking capacities inside autistic minds. The DEP names social interaction as a fundamentally relational, dynamic, and contextual process, where misunderstandings emerge through the interplay of differing communication styles, cultural expectations, lived experiences, and power asymmetries between autistic and non-autistic people (Milton, 2012, 2023). The DEP rejects the neuronormative assumption that non-autistic social norms are the natural or objective standard against which autistic communication should be judged, or moralized. Rather than pathologizing autistic differences, it foregrounds the mutual, systemic, and often structurally unequal conditions that shape how social interactions unfold and are perceived. In doing so, the DEP challenges the deep-seated orientation in autism research toward deficit models that individualize and medicalize what are fundamentally social, cultural, and political processes.

Clarifying Core Claims of the Double Empathy Problem As Applied to Autism

One key concept assumed to be a core claim of the DEP is that neurotypical people struggle to interact with and understand autistic people in the same way that autistic people struggle to understand neurotypical people (e.g., Camilleri et al., 2023; Livingston et al., 2025). In addition, the claim that communication between people of the same neurotype (i.e., autistic pairs or non-autistic pairs) will be superior to communication between mixed pairs (i.e., pairs with a autistic and non-autistic person) has often been treated as a foundational premise of the DEP or at least used to generate testable hypotheses (e.g., Crompton, Ropar, et al., 2020; Livingston et al., 2025), despite not being explicitly articulated in the theory's original formulation.

While these claims are not unrelated to the DEP, to reduce the DEP to them oversimplifies the theory and misrepresents its conceptual basis. For example, the idea that autistic and non-autistic people equivalently struggle to interact with and understand each other suggests symmetrical difficulty, but Milton (2012) notes that while both parties may experience disjuncture, non-autistic individuals may experience it as more unusual and unsettling, whereas autistic individuals are often habituated to these difficulties due to lived experience. Yet this too should not be misunderstood to imply it will always be “more severe” for non-autistic people, as difficulties may depend upon context: *“This is not to say that autistic people will automatically be able to connect and feel empathy with other autistic people they meet any more than two random non-autistic people would; however, there is greater potential for such, at least in how being autistic (or not) shapes experiences of the social world”* (Milton et al., 2022a, p. 1901). Thus, it may be more accurate to identify two interrelated, probabilistic claims when applying the DEP to autism, specifically: (1) non-autistic people generally struggle to understand autistic people (to a greater degree than with non-autistic individuals), and (2) autistic people often experience difficulty interacting with non-autistic individuals (often, but not necessarily, to a greater extent than they have difficulty with other autistic people). As these claims also probabilistically suggest autistic-autistic and neurotypical-neurotypical interactions would be improved, they add nuance to the idea that same-neurotype communication will *always* be superior to mixed-neurotype communication.

Notably, both of these revised claims are experienced as continuously shaped by prior experience, power, context, and expectations (Milton et al., 2022b). Additionally, while the DEP is often interpreted as describing mutual or bidirectional misunderstanding, this should not be taken to imply symmetry in social power (Milton, 2016). The social power one holds is situational and relational, dependent on actors’ hierarchical positioning, spheres of authority, and interpersonal dynamics (e.g., an employment supervision relationship, an official in charge of determining eligibility for some service, a dyadic relationship in which one person takes on a

decision-making role). Autistic people often are granted limited levels of autonomy and self-determination (e.g., Burke et al., 2024; Tesfaye et al., 2023; Van Hees et al., 2018).

Furthermore, autistic people are often underemployed, in unstable patterns of employment, and face systemic barriers to career advancement (e.g., Davies et al., 2024; Taylor et al., 2015), limiting their power in workplaces. Interactions between autistic and non-autistic people are structured by neuronormativity, within which non-autistic communicative norms are privileged and institutionalised. As such, misunderstandings are shaped by unequal expectations, differential credibility, and asymmetric consequences. Social psychology literature suggests that people generally invest less effort in understanding others' perspectives as their power over those others increases (Cameron et al., 2012). Thus, relational and hierarchical disparities in power are very likely to contribute to non-autistic people's difficulties understanding autistic people, as well as to the double empathy problem more generally.

Indeed, neurodivergence is not the only axis along which power may tend to systematically differ between groups. Intersecting forms of marginalisation, including racism, heterosexism, or class-based exclusion, shape communicative expectations and prior experiences of misunderstanding. Thus, the likelihood of mutual understanding may to a considerable extent depend on *overlapping social and embodied experiences*, rather than only neurodivergence per se. This also raises the possibility that mutual understanding may emerge in interactions where individuals share some forms of marginalisation or social positioning, but not others, such as when autistic and non-autistic people who share ethnicities interact. Shared experiences of stigma or exclusion may scaffold mutual attunement even in the absence of shared neurodivergence, complicating any simple mapping between neurotype similarity and interactional success.

These probabilistic framings align with recent work suggesting that understanding between autistic and non-autistic people can improve through deliberate learning and effort, echoing the idea of a "continuum of neurocultural learning" (Gillespie-Smith et al., 2024, p. 20).

Thus, for example, if a non-autistic person makes a deliberate effort to learn from and understand autistic people or a specific autistic person, the likelihood of them experiencing disjunctures in these interactions and relationships is likely to decline. This also allows for the possibility that interactions between autistic and non-autistic people may thrive. For example, Williams et al. (2021) found that mutual understanding was often achieved across interaction types, even though rapport, flow, and intersubjective attunement were generally greater in autistic-autistic dyads. Their findings suggest that understanding is not precluded by shared neurodivergence difference itself, but may be supported by factors such as familiarity, communicative accommodation, curiosity, and effortful engagement. This is crucial, as it has implications for an *applied* program of DEP research; instead of claiming to offer a neutral description of reality, it challenges us to promote better understanding across people of differing neurodevelopmental profiles (Dwyer, 2024). Rather than being deterministic, the DEP is a probabilistic framing that invites applied inquiry into how mutual understanding might be fostered.

It has been argued that the concept of the DEP has been applied inconsistently across studies—sometimes using different terms for the same idea and other times using the same term to refer to distinct constructs—thereby undermining its theoretical coherence and empirical utility (e.g., Livingston et al., 2025). However, although there is much room for further investigation of the social-cognitive mechanisms involved in DEP-related disjunctures, the DEP is not per se a theory about social-cognitive constructs. Moreover, the diversity of constructs currently associated with the DEP reflects not a failure of clarity, but the productive richness of a framework still in theoretical emergence and relative infancy. Interdisciplinary concepts, particularly those grounded in lived experience and critical methodology, often display terminological and methodological multiplicity before arriving at any settled consensus (Keestra et al., 2016). Foundational constructs in psychology, such as “executive function,” “self-efficacy,” and “resilience,” have similarly endured periods of definitional instability and

confusion, yet this has rarely disqualified them from scientific legitimacy (Brown et al., 2020; Howlett et al., 2023; Marsh et al., 2019).

Additionally, according to Kerssens-van Drongelen (2001), theory building is inherently iterative and dynamic, unfolding through repeated cycles of engagement with data, conceptual reflection, and refinement. Indeed, this is the beauty of polyphony across disciplines, which can stem conceptual stagnation in one discipline. Rather than a one-way process between evidence and theory, theory development ideally involves a reciprocal relationship where new findings inform theoretical constructs, epistemic triangulation with community hubs, and evolving theoretical insights guide further inquiry, meaning it is grounded, connected, evolving, and growing alongside the community it came from—and not appropriated from, into stagnation. This approach supports a flexible yet rigorous methodology that allows researchers to remain responsive to complexity and emergent meaning while steadily building conceptual depth.

Evaluating the DEP Within Its Epistemological Foundations

Across psychology, critical and constructivist epistemologies are frequently evaluated through positivist expectations of operational prevision, falsifiability, and causal inferences. These expectations reflect long-standing disciplinary hierarchies. A recent critique of the DEP (Livingston et al., 2025) exemplifies this broader pattern: rather than engaging with the construct on its own epistemological terms, the authors re-derive it into social-cognitive hypotheses that it was made in response to, then interrogate the empirical literature for confirmatory evidence. In doing so, such critiques dismiss methods deemed “subjective” or “value-laden,” including qualitative approaches, framing them as inherently biased. However, all research, quantitative or qualitative, is shaped by researcher choices and biases when designing the study, choosing wording of questions, interpreting data which can reinforce social and cultural messaging about the perceived inferiority of a group, and use underdetermined data to “confirm” it (Teo, 2010). The dismissal of qualitative research reflects a longer history in psychology of devaluing methods that do not conform to experimental or correlational

paradigms. This devaluation of qualitative inquiry reflects a longer disciplinary history in which methods that do not conform to experimental or correlational paradigms have been treated as scientifically inferior. This is particularly misplaced when studying complex social phenomena, where qualitative and observational methods are often the most appropriate and rigorous approaches for identifying patterns, meanings, and interactional dynamics that often cannot be initially or fully captured through experimental or correlational designs. In addition, qualitative and observational research often serves as a foundation for future quantitative exploration.

This pattern of devaluing qualitative inquiry sits in tension with the epistemological foundations of the DEP (Milton, 2012; Milton et al., 2022). The DEP's critical and constructivist¹ roots—drawing particularly on social constructionist traditions within sociology (Milton, 2012), symbolic interactionism (Adler-Nissen, 2016), phenomenology (e.g., Schutz, 2012), and ethnomethodology (Garfinkel, 2023)—which emphasize subjectivity, lived experience, intersubjectivity, and power in shaping social realities (Milton et al., 2023) in order to appeal to traditional positivistic and logical empiricist traditions that have been used to disguise and justify violence autistic people have often sought to escape (Botha, 2022). Fields and disciplines such as psychology and applied behaviour analysis have often privileged quantitative, experimental designs and to marginalize interpretive and community-generated knowledge (Fletcher-Watson et al., 2019; Milton & Bracher, 2013). As Fricker (2017) and Teo (2010) note, framing qualitative methods as inherently subjective and insufficient, perpetuates a longstanding devaluation of autistic people's first-person knowledge and enacts epistemic injustice and epistemic violence (Fricker, 2017; Teo, 2010). In some cases, this is even carried to the point of absurd illogic, such as asserting that views without “objective” quantitative evidence behind them must necessarily be false (Travers & Tincani, 2025).

¹ Here, we use ‘constructivist’ to reflect both individual meaning-making processes and broader social constructionist accounts of how shared realities are produced and maintained.

These dynamics are not unique to autism research. As Danziger (1994) and Harré (2004) have documented, psychology defined itself in the 20th century through a privileging of experimental methods, systematically marginalizing qualitative and introspective approaches. Even though qualitative research has seen renewed legitimacy in recent decades, it continues to be sidelined by many psychologists who see it as a threat to psychology's scientific status, despite its ability to reaffirm epistemic justice and achieve triangulation (Breitmayer et al., 1993; Levitt, 2024). Qualitative examination of experimental paradigms can offer insights into their ecological and content validity; qualitative investigation of social interaction can empirically ground the formulation of hypotheses in later quantitative work; and qualitative exploration of people's lived experiences can shape the development and experimental testing of interventions (Bottema-Beutel, 2025; De Ruiter & Albert, 2017). Indeed, in research focused on the DEP, qualitative evidence and lived-experience has been used as the foundation of experimental designs (Fletcher-Watson et al., 2019; Tan, 2023).

In this context, current debates around the DEP illustrate a wider epistemological conflict within autism research: whether social difficulties are best conceptualized through individual-deficit cognitive models or through relational, situated, and power-aware frameworks grounded in autistic perspectives. In other areas of social science, researchers recognize the necessity of pairing qualitative and quantitative approaches without flattening them to a hierarchy of "perception" (qualitative) and "truth" (quantitative; Campbell et al., 2017). The debate between qualitative and quantitative research can make a questionable leap of collapsing or conflating epistemology with ontology, by reaffirming this hierarchy, assuming that when they measure something quantitative that they have access to and are reporting on an objective reality, instead of acknowledging that they too, are simply creating epistemologies.

How might one reconcile these starkly diverging perspectives? From a Kuhnian perspective, science is not an exercise in objective knowing, nor even in falsification as such (Kuhn, 1970). Rather, anomalies are detected—findings inconsistent with the assumptions of a

given approach—and researchers must then respond. Commonly, and sometimes justifiably, researchers may attempt to dismiss novel claims as reflective of methodological problems or other evidentiary weaknesses. When anomalies do survive critical scrutiny and force major revision of paradigmatic approaches to science, this process of “paradigm shift” can be fraught and prolonged, and complicated by personal biases and interests (Kuhn, 1970). The tensions currently pervading the autism field can be seen as emblematic of the kind of paradigm conflict Kuhn (1970) described. The DEP introduces conceptual anomalies that challenge core assumptions within the dominant cognitive science understanding of autism that assume rather than empirically show that social difficulties are located solely within autistic individuals. A crucial issue in paradigm shifts is incommensurability; that is, the difficulty of finding concepts that are comparable or commensurable across competing theories (Kuhn, 1970). The framing of the DEP does differ from traditional social-cognitive theories, and attempting to operationalise the DEP according to the standards of cognitive science would risk distorting it, potentially even to the point of demanding that a relational theory conform to individual-level, deficit-oriented metrics. As Kourti et al. (2021) argue, the deeper concern is not only which constructs are being measured, but who holds epistemic authority to define what counts as legitimate knowledge in autism research. Rather than viewing the DEP exclusively as a set of empirically testable claims, we might better understand it as part of a broader paradigm shift; one that centers autistic perspectives, questions neuronormative assumptions, and seeks to reconceptualize social interaction through a relational and power-aware lens.

Elucidating testable claims is a laudable goal. However, we should not necessarily set ourselves the task of determining whether there is indubitable evidence supporting any given set of claims, such as those in the DEP. Rather, our task might be better formulated as attempting to consider multiple forms of evidence—quantitative and qualitative, consistent or inconsistent with the DEP and relevant alternative accounts—together with their relevant strengths and weaknesses, attempting to draw reasonable inferences from what is already

known while being mindful of our inherently subjective perspectives, and highlighting limitations and directions for further research. Viewed through this integrative lens, existing empirical studies provide a useful, if complex, basis for considering how the DEP has been applied and interpreted in research on social interaction.

Evidence on the Application of the Double Empathy Problem and Best Practices for DEP Research

The Double Empathy Problem conceptualizes interactional difficulties between autistic and non-autistic people as bidirectional, arising from mutual misattunement shaped by differing communicative norms and expectations, including from non-autistic people, rather than deficits located solely within autistic individuals. While the DEP does not explicitly posit that interactions between people who share autistic identities and ways of being may proceed more smoothly than interactions between autistic and non-autistic people, there have been findings to this effect. Studies such as Crompton, Ropar, et al. (2020), Morrison et al. (2020), Bolis et al. (2021), and Foster et al. (2025a; 2025b) show that dyads made of autistic and non-autistic people report lower rapport, less synchrony, and more frequent misunderstandings. Wadge and colleagues (2019) and Crompton et al., 2025 find otherwise, but as noted, a greater likelihood of connection or understanding when autistic people interact with other autistic people does not mean that this would occur in all contexts. Such variability in findings does not signal conceptual failure but highlights the need for meta-analytic synthesis to determine the robustness, moderators, and boundary conditions of these effects, and does not refute the finding that mixed-neurotype interactions are often the least successful—clearly inconsistent with theories of autistic deficits. Additionally, DEP aligned research examining social interactions and communicative processes will be naturally complex due to the multiple factors (beyond autism diagnostic status) that affect them. Rich explorations of interaction data, alongside thorough descriptions of specific contexts and applications are essential in understanding the factors that may enhance or hinder communication within or between neurotypes.

In addition, several factors could explain the lower rapport among autistic dyads found in some studies, other than a refutation of claims stemming from the DEP: autistic individuals may internalize negative self-perceptions, assess rapport using different criteria as compared to non-autistic people, or be less likely than non-autistic people to provide socially desirable responses (Hull et al., 2017; Kirchner et al., 2012; Morrison, et al., 2020). These findings are also shaped by the ecological validity of the communication tasks and by how constructs such as rapport or enjoyment are operationalized and measured. The somewhat artificial nature of the communication tasks in these studies might be more difficult for autistic people who may not enjoy or want to engage in researcher-created scenarios (hence, for example, reporting struggling with the arbitrary nature of “chit chat”; Müller et al., 2008).

These sources of variability and complexity make clear that simplified or essentialist interpretations of dyadic findings are empirically unwarranted and conceptually misaligned with the DEP. In particular, mischaracterizations of the DEP as assuming that autistic–autistic interactions are uniformly easier illustrate a recurring pattern in which relational or critical theories are reinterpreted and misread through assumptions imported from individual-deficit models. In fact, the DEP posits only a *greater likelihood* of mutual understanding, and not necessarily rapport, under certain circumstances (Milton, 2012; Milton et al., 2023). This distinction also requires that researchers treat “neurotype,” or “identities” not as a biologically homogeneous category but as a socially constructed position marked by shared experiences of marginalisation. Shared identity related to disability does not guarantee connection. “Neurotype” categorisations do not refer to natural categories of person based on neat patterns of shared neurology (as heterogeneity amongst autistic people’s neurology, for example, might be even more increased than that of non-autistic people; Benkarim et al., 2021; Hahamy et al., 2015; Nordahl et al., 2022; Nunes et al., 2019), but instead refer to shared social positions.

Ironically, though the community has adopted neurologically-focused and seemingly-essentialist language in the wake of the flourishing of the “neurological diversity” or

“neurodiversity” movement, autism may be more about shared marginalisation that autistic people experience due to the relation between their behaviours and experiences and broader societal norms, institutions, and built environments (Chapman, 2020; Ellis, 2023; Maynard, 2025). Importantly, this shared social positioning is not monolithic; the ‘shared experience’ that may facilitate mutual understanding within autistic-autistic interactions is itself heterogeneous and stratified, suggesting that DEP-related probabilities may vary across intersecting identities and roles rather than operating uniformly.

These considerations point toward a set of best practices for moving forward with DEP-aligned research agendas: conceptualise neurotype as a socially situated identity rather than a biological essence; interpret findings within their methodological and contextual constraints; prioritise interaction-based and ecologically grounded designs; and triangulate/extend self-report measures of constructs like rapport with observational measurement systems of interactional attunement in which assessors are masked to group and/or condition.

Understanding this probabilistic, relational, and ecological frame can open a whole host of research directions. For example, instead of simply investigating *whether* autistic people relate best to other autistic people or to non-autistic people (for example), we could ask what immediate or ultimate factors support or inhibit mutual understanding and rapport, in order to maximise it. Instead of focusing only on comparing autistic and non-autistic people at the between-group level, we could examine the role of individual and within-group differences in dyadic or larger interactions. These practices support research that is methodologically rigorous, theoretically coherent, and aligned with the relational, community-rooted commitments at the heart of the DEP.

Implications for Applying the DEP in Practice From a Growing Evidence Base

A more productive question than whether the DEP should be applied in practice is *how* DEP-informed insights can be responsibly and empirically translated into real-world contexts and practice. A growing body of work has demonstrated that interventions focused on improving

non-autistic people's understanding of autism and neurodiversity, rather than adjusting autistic people, are feasible and often evidence-based. Examples include University-based neurodiversity trainings (e.g., Waisman et al., 2023), communication partner training frameworks (e.g., Albin et al., 2025) participatory models led by autistic scholars and practitioners (e.g., Jones et al., 2021), and school-based neurodiversity curricula (e.g., Alcorn et al., 2024). These training efforts align with the DEP's core insight that communication difficulties are relational, bidirectional, and context-dependent.

Livingston et al. (2025) raised concerns that applying DEP-informed insights in clinical, educational, or policy contexts risks premature translation. Such applications are framed as epistemic overreach: premature and careless given what is judged to be insufficient empirical support. This position assumes that translation should occur only after a theory is fully tested and empirically consolidated. Yet such a standard is rarely applied in autism research more broadly, where long-standing interventions with limited or poor-quality evidence have been widely implemented and even institutionalized, often with documented risks of psychological and relational harm (Botha & Frost, 2020; Cage et al., 2018; Gernsbacher & Yergeau, 2019). While the desire for conceptual clarity and empirical rigor is valid, this warning privileges theoretical finality over addressing the real and well-documented harms of prevailing deficit-based models—a status quo that relies on societal ableism, not empirical validation (Botha & Frost, 2020; Cage et al., 2018; Gernsbacher & Yergeau, 2019). Withholding relational or mutuality-based frameworks until a putative threshold of evidence is met risks reinforcing the very inequities that emerging DEP-aligned research has sought to undo.

A growing body of DEP-aligned applied work illustrates how such principles can be mobilized ethically and constructively. In practice, clinicians and educators using DEP-informed approaches are not irresponsibly abandoning science; they are centering autistic perspectives, resisting normalization strategies (e.g., enforced eye contact) which have been strongly critiqued and deemed unacceptable by autism communities (Dwyer et al., 2024; Gardiner,

2017; Shyman, 2016), and rejecting an empirically indefensible status quo. In place of the status quo, they are promoting mutual understanding, consent, and safety by fostering mutual respect. The DEP is being used to shift clinical practice away from pathology toward conversations about equity, power, and discrimination, an urgently needed reorientation in fields that have long marginalized autistic voices. While the question of *how* best to implement DEP-informed practices, and whether they are empirically supported, is a legitimate empirical question that warrants consideration, the moral imperative to reduce ableism is not; it is an ethical commitment grounded in values, not a hypothesis awaiting verification. Sharing relevant research with those affected by it is a moral imperative; not doing so would mean a significantly more problematic (and empirically indefensible) position would continue to be held by autistic young people—that autistic people alone are responsible for problems of understanding.

Conclusion

The DEP challenges the assumption that a breakdown in communication is due to a deficit located within an individual, and instead posits that this is due to a “double problem” experienced by all parties in an interaction (Milton, 2012). Previous research claiming autistic people lack a theory of mind causes societal harm (Cohen-Rottenberg, 2011; Dinishak & Akhtar, 2013), has a shaky evidence base (Gernsbacher & Yurgeau, 2019) and “its continued perpetuation will continue to be damaging to autistic people” (Rosa, 2013). As Kapp (2019) argues, social deficit theories of autism intensify the medical model’s harms by pathologizing autistic differences, denying autistic agency, dehumanizing autistic people, and perpetuating reductionistic (e.g., oversimplifying autism as a social disorder) and essentialistic (e.g., treating autism as a fixed essence) claims of the medical model. Yet, this is the status quo that we are at risk of reinforcing when the DEP is questioned through a positivist epistemology it was never designed to adhere to. To resist these harms, there is an urgent need for frameworks that affirm autistic ways of being as valid, meaningful, and diverse expressions of human neurocognition, not deviations to be corrected, such as the DEP.

Empirical evidence of non-autistic difficulty in interacting with autistic people is a crucial part of advocating for social change and increasing understanding of autistic people within both research and the general population. Aligning research with a DEP framework allows us to challenge simplistic models locating deficits in the autistic person alone, and emphasizes issues of equity and discrimination. DEP research is in its infancy—and there are kinks to iron out, as there are in any emerging research field. However, DEP-aligned research strongly aligns with autistic real-world experiences, and thus is worthy of significant research focus (Sinclair, 2010; Watts et al., 2024). Autism researchers should not only practice good science; they should practice humility in their approach, centre the experiences of the autistic community, and consider their findings within real-world contexts.

The evolving use of the DEP across diverse research contexts signals conceptual generativity, and trans-disciplinarity. The DEP's growing influence across psychology (e.g., Crompton et al., 2020), education (Hummerstone & Parsons, 2023), clinical practice (Bottema-Beutel et al., 2024), philosophy (Chapman, 2019), linguistics (Williams et al. 2021), design theory (Gaudion et al., 2014), film (Eastwood et al., 2025), and disability studies (Kapp, 2022) demonstrates that this relational and sociological lens yields insights that can be widely applied. Rather than suggesting premature closure around a single operational definition (e.g., Livingston et al., 2025), this phase of conceptual development invites deeper interdisciplinary dialogue and philosophical reflection—especially in ways that remain responsive to the lived realities and epistemic contributions of autistic people, meaning a concept which emerged at a community level, stays at a community level. While the DEP is not a cognitive theory, constructs explored within DEP-aligned research—such as rapport (Crompton, Sharp, et al., 2020; Foster et al., 2025a), first impressions (DeBrabander et al., 2019; Jones et al., 2024), or metacognition (Heasman & Gillespie, 2018)—can be meaningfully operationalized and tested within empirical designs. What is needed is not the reconfiguration of the DEP into a unitary, testable construct, but the development of rigorous, context-sensitive ways to empirically investigate the relational

dynamics it seeks to describe.

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