



What We Talk About When We Talk About Empathy: Toward a Common Lexicon of Empathy-Related Constructs

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Abstract

Almost since the term “empathy” was coined, there has been scholarly disagreement about its meaning. Today it can best be viewed as an umbrella term encompassing a host of more specific constructs, almost all of which are regularly referred to as “empathy” in some form or fashion. Promiscuous use of this global label to denote very different constructs has impaired communication among and between scholars, practitioners, and the general public. A team of 15 empathy scholars assessed this issue and created a lexicon for these specific lower-order constructs. In this article we report the result of this effort. The lower-order constructs making up this lexicon are *vicarious affect*, *emotional contagion*, *emotion co-sharing*, *sympathy/compassion*, *personal distress*, *perspective taking*, *accurate inference*, *mimicry*, *synchrony*, *projection*, and *transportation*. We recommend that this more specific language be used more frequently and that the umbrella term “empathy” be used more sparingly.

Keywords

empathy, perspective taking, emotional contagion, emotional empathy, cognitive empathy

Introduction

If you are reading these words, you probably have at least some interest in empathy—perhaps as an empathy scholar, or simply as someone intrigued by the topic. You probably know that empathy has long been defined in a variety of ways and that this has posed an ongoing problem for the field (Decety & Cowell, 2014; Hall & Schwartz, 2019). In this article, we argue that the fundamental reason for this state of affairs is that the term “empathy” has been applied too broadly to an array of distinctly different constructs. As a result, the word has been imbued

with so many (sometimes conflicting) meanings that it almost invariably suggests more connotations to a reader than the writer intends. Stretching the term “empathy” to encompass disparate behavior, from yawning contagion to flocking birds to compassion in humans, obscures its meaning. Using the single term “empathy” to refer to

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such a variety of constructs contributes to ambiguity and confusion by making it difficult to compare measures of empathy across studies.

Given your probable interest in this topic, we invite you to pause for a moment and think about how you would go about solving this problem. One possibility might be to simply come up with a better definition of empathy—you might review and consider theoretical definitions of empathy and then choose or create one on which all scholars can actually agree. You may already have a definition in mind. However, there are dozens of empathy definitions in existence (Cuff et al., 2016; Hall & Schwartz, 2019). How would you choose among them? And no matter what you choose, others will often favor a different definition. As of this writing, no one in the last 75 years of empathy research has devised a definition capable of persuading the field of its correctness. Thus, solving the problem by focusing on formal definitions of empathy seems a Sisyphean task.

A promising alternative approach might be to focus not so much on scholars' words but on their deeds. Although researchers have long disagreed about how to define empathy, they have been remarkably consistent in how they have actually studied the topic empirically. That is, when one examines the operational definitions that have been used in empathy research, a relatively small and consistent set of constructs can be identified. We used this strategy to identify a set of distinct operational constructs that at one time or another has been construed by scholars as empathy. When viewed through this lens, the problem comes into sharp focus. Far too frequently, identical operationalizations are given different names, or different operationalizations are given the same name. We believe that focusing on specific operationalizations is a fruitful approach that we describe in more detail in this article.

Our focus on operational definitions in the published literature also means that the constructs that emerge have come nearly entirely from the work of Western scholars studying Western populations and publishing in English—a common problem, unfortunately, in psychology (Henrich et al., 2010; Rad et al., 2018). This investigation is therefore not well suited for exploring questions of cultural variation in how empathy is construed, experienced, and expressed across cultures (Cheon et al., 2010; Chiao, 2017), though we are mindful of this issue throughout our article. If empathy-related constructs vary across cultures, these variations have not been systematically addressed in the literature. Indeed, non-Western scholars routinely report research that features constructs originally formulated by their Western counterparts, often using translated versions of English language scales (e.g., X. Huang et al., 2012; Kataoka et al., 2012). Thus, we

cannot claim that this proposed lexicon is universal, and indeed we hope it will evolve as research on cultural variation in this field accumulates. We return to this important issue in the Discussion section.

The problem

Scholars have long argued about empathy's meaning. In their survey of empathy definitions between 1909 and 2013, Cuff et al. (2016) identified 43 distinct definitions, noting that "there are perhaps as many definitions as there are authors in the field" (p. 144). Clearly this is problematic. In both academic and applied domains—such as medicine, ethics, law, and policy—empathy has become an enticing but muddy notion, prone to misinterpretation (Decety & Cowell, 2014). When a concept is imbued with so many meanings, it is at risk of losing function. Moreover, theoretical claims can only be evaluated through empirical investigation, and using ambiguous measures of core constructs in those investigations needlessly makes testing the claims more difficult.

In this article, we propose a common lexicon to describe the lower-order constructs (LOCs) associated with the general term "empathy," and we will model and encourage commitment to future use of these more precise lower-order terms. Doing so will provide greater conceptual clarity; contribute to clearer communication among scholars, practitioners, and the public; and allow for greater precision in formulating scientific research questions.

Factors contributing to the problem

Scholars have described possible reasons for communication problems in the study of empathy (e.g., Cuff et al., 2016; Duan & Hill, 1996). For example, researchers have offered a wide variety of ways to think about empathy. Empathy is sometimes seen as a process (e.g., Murphy et al., 2022) and sometimes as an outcome, either affective (e.g., Jordan et al., 2016), cognitive (e.g., Rogers, 1975), or experiential (Breithaupt, 2019; Keen, 2007). It is sometimes conceived of as a state (e.g., Stotland, 1978) and sometimes as a trait (e.g., Davis, 1983). Sometimes it is considered an innate capacity (e.g., Geer et al., 2000) or a trained ability (e.g., Zunshine, 2006), and sometimes simply a behavioral tendency (Mehrabian & Epstein, 1972). Sometimes it is seen as a multidimensional phenomenon incorporating some or all of the above (e.g., Davis, 1994). All of these are valid conceptions of specific aspects of empathy, but their diverse characteristics make comparison across studies difficult and sometimes misleading.

Moreover, and perhaps more importantly, empathy scholars often fall prey to what have been termed

jingle-and-jangle fallacies (Kelley, 1927). Jingle fallacies occur when two different constructs are assumed to be the same because they have the same name (e.g., using the term “empathy” to refer to both perspective taking and emotional contagion). Jangle fallacies occur when two identical constructs are considered different because they have different names (e.g., referring to the same measure of emotion recognition as both “empathy” and “theory of mind”). In the case of empathy, the jingle fallacy is especially likely because so many different constructs are given the same name. For example, many measures are described as “empathy scales,” but they assess a wide variety of distinct constructs (Lilienfeld & Strother, 2020).

Does it matter?

Readers may wonder whether empathy’s definitional problems really matter. Legitimate disagreements about the boundaries of a term are common in scientific debates. Moreover, despite empathy’s definitional travails, empathy research has thrived. A PsycInfo search for peer-reviewed articles containing the stem “empath” in the title revealed that between 1970 and 2024 the average number of articles per year rose from 13 to 392. From 2000 to 2024 the growth was almost exponential—from 67 articles per year to almost 400.

However, a higher quantity of research is no guarantee of quality—and the quality of research is likely to suffer when there is terminological ambiguity. In the 1970s, a scholar could easily read every published empathy article (roughly one per month); by 2024, the number of published articles had increased thirtyfold, making the task considerably more challenging. As the sheer amount of available information increases, inefficient communication exacts an increasing cost. As noted in multiple reviews of the empathy literature (Batson, 2009; Cuff et al., 2016; Decety, 2020; Duan & Hill, 1996; Hall & Schwartz, 2019) and the empathy-adjacent literatures on mentalizing, or theory of mind (Quesque & Rosetti, 2020; Quesque et al., 2024), the most important negative consequence of definitional inexactitude is that it hinders effective communication, especially communication among scholars, but also between scholars and practitioners.

In the case of communication among scholars, consider an investigator trying to decide on an empathy measure for a research project. This researcher would encounter instruments that assess distinct phenomena: the tendency to experience the same emotion as others (Vossen et al., 2015), the tendency to mimic others’ behavior (Jordan et al., 2016), the ability to read emotional states from a target’s eyes (Baron-Cohen et al., 2001), a multidimensional construct with different subscales (Davis, 1983), or *global empathy* that combines both cognitive and emotional responses to others (e.g., Spreng et al., 2009).

Given this state of affairs, the investigator might select a measure that is actually ill-suited for the project. Careful scholars might sort through all of the instruments, sift through the literature evaluating them, and then select the one most appropriate for their specific needs. But even after doing so, a basic problem remains. As long as the global term “empathy” is used when describing the results of the study, it will require readers to figure out—or not—which construct has actually been measured. Imprecise terminology therefore can inhibit progress toward the goal of sharpening our understanding of the precursors and implications of different empathy-related constructs (e.g., Preston et al., 2020).

Problems in communication also occur when scholars with genuinely different views as to what constitutes empathy nevertheless use the same term when referring to quite different phenomena. For example, one of the most important and well-known lines of research in the past several decades is Batson’s empathy-altruism hypothesis (Batson, 2017). On the basis of decades of research, Batson argued that empathy can produce an other-oriented motivational state directed toward improving the welfare of another—an altruistic motive that inspires helping, even if it is costly to helpers. In contrast, Prinz (2011), Bloom (2017), and others (see also Decety, 2021) argue that empathy is a poor basis for making helping decisions because it can be too emotional and produces unfair, less optimal outcomes. Although it appears that scholars such as Prinz and Bloom disagree with Batson, they are in fact using the same term when referring to clearly different phenomena. Batson uses empathy to mean “empathic concern,” defined as an other-oriented emotional response, such as compassion, to a person in distress. Prinz and Bloom use the same word to refer to matching other people’s emotions, such as feeling distress to their distress. Unless readers are highly attuned to these conceptual and definitional distinctions, it is easy to overlook the fact that the two positions are not actually in disagreement. The confusion results entirely from using the same word to describe clearly different things.¹

Imprecise use of the global term “empathy” can also contribute to communication problems between and among scholars and practitioners, frequently within clinical or educational settings. For example, perceived physician empathy is associated with positive outcomes for patients, such as greater adherence to treatment regimens (e.g., Vermeire et al., 2001), and empathy has been shown to decline in medical students from their first to their final year (e.g., Hojat et al., 2004). To avoid this potentially problematic decline in empathy, many medical schools have added empathy training to the curriculum (e.g., Kelm et al., 2014). However, a closer examination suggests a different picture. Most research measuring empathy in physicians uses the Jefferson Empathy Scale (JES;

Hojat et al., 2002). However, two thirds of the 20 items on the JES do not ask about the tendency to experience emotion or the frequency of trying to understand patients, but instead inquire about one's beliefs about how empathy affects therapeutic outcomes (e.g., "I believe that empathy is an important therapeutic factor in medical treatment"; K. E. Smith et al., 2017). Thus, in this case the empathy measure conflates empathic thoughts and emotions with beliefs about empathy. These beliefs are important, but they do not capture how most people, and certainly most empathy scholars, define empathy. Indeed, in a multinational study of medical students, Costa et al. (2017) found that scores on the JES were only weakly correlated with the scales making up one widely used measure of empathy (the Interpersonal Reactivity Index, or IRI). Further, in a longitudinal study of medical students, JES scores did decline in a small but statistically significant way, but scores on a more conventional empathy scale, measuring constructs such as perspective taking and vicarious emotion, actually increased (K. E. Smith et al., 2017). Thus, medical schooling's effect on empathy depends upon its operationalization.

Cognitive empathy and emotional empathy

The most common way that scholars have recognized empathy's multifaceted nature has been to distinguish between cognitive and emotional empathy. This distinction can have real value, for example, by providing a useful shorthand when distinguishing between constructs that necessarily involve observers experiencing an emotional state and those that do not. However, the terms "cognitive empathy" and "emotional empathy" have the same inherent problem as the global term "empathy": They are often too general to be useful, and as a result they lead to imprecision. In essence, cognitive empathy and emotional empathy are also umbrella terms. People can still mean multiple things when they use these terms, and this can lead to confusion.

For example, investigations of cognitive empathy often operationalize the construct in one of two primary ways: by focusing on the *process* of trying to imagine the other's internal state or point of view or focusing on the *outcome* of this process (arriving at an accurate inference). However, these are two distinctly different constructs, and the specific operationalizations of these constructs also vary widely. Thus, cognitive empathy has been operationalized by directly manipulating perspective taking (e.g., Davis et al., 1987), by measuring the self-reported tendency to take others' perspectives (Silva et al., 2018), by comparing observer inferences about a target to some external criterion (e.g., Brook & Kosson, 2013), and by simply asking individuals to report how

accurate they are (e.g., Duradoni et al., 2023). Using the term "cognitive empathy" can obscure the fact that these are quite different things. Attempting to understand another person's internal state is not the same thing as successfully doing so; believing that one is an accurate perceiver is not the same as being one. A designation such as cognitive empathy can be useful as an organizing principle subsuming different constructs, but correctly identifying which of these constructs is actually being studied, or which constructs are being measured, is critical.

Similarly, emotional empathy takes various forms, including feeling the same thing as others, experiencing compassion for distressed others, and feeling distress in response to targets in need. The general term "emotional empathy" obscures the fact that these are very different responses. Indeed, research has found that different types of emotional empathy are differently related to burnout (Martingano et al., 2026); compassion for others is associated with lower burnout, whereas feeling what others feel is associated with higher burnout. Chrysikou and Thompson (2015) also noted the common practice of combining scores on the IRI subscales to produce an overall measure, and they cautioned against doing so for the very reason we emphasize here: Combining different phenomena under the banner of empathy, cognitive empathy, or emotional empathy is an impediment to accurate understanding.

Scholars have long recognized these problems, and their negative consequences, and recommended various solutions. Earlier work tended to identify problematic definitional issues (e.g., Davis, 1994; Duan & Hill, 1996) and offer suggestions for less ambiguous language (Duan & Hill, 1996) or models of empathy that included multiple elements (Davis, 1994; Preston & de Waal, 2002). More recently, scholars have begun advocating for a common set of categorizations and definitions (Hall & Schwartz, 2019) and to rely less on the "slippery concept of empathy" and focus on "more precise constructs" (Decety & Cowell, 2014, p. 526). To date, however, simply recognizing the problem has not discouraged scholars from using "empathy" when a more specific term is preferable.

A new approach

We have found it useful in this project to use as a metaphor the *empathy universe*—a conceptual space encompassing a variety of specific LOCs that have been associated with the general term "empathy" in the scholarly literature. It is these LOCs that are debated among philosophers and operationalized, through manipulation or measurement, in empirical research. Because these LOCs more precisely describe what a scholarly project is

actually examining, measuring, and finding, there is real scientific value in using these LOCs more widely and consistently. This is particularly important given that—depending upon which lower-order construct is actually measured—very different conclusions can be drawn regarding the nature of empathy (e.g., Preston et al., 2020). In addition, we believe that providing a common lexicon such as this will provide a navigation tool for scholars and practitioners who are interested in understanding how to measure or manipulate various types of empathy.

Although we argue for increased use of these LOCs, it is important to note that we do not advocate the wholesale abandonment of the general term “empathy.” Umbrella terms have great value when used in the proper way. *Memory*, for example, is an umbrella term that encompasses a broad array of phenomena, and no one would argue it should be abandoned. No one argues about whether short-term memory, long-term memory, procedural memory, or declarative memory is the “true” memory. All are understood to be distinct phenomena that are related by their inclusion within a larger construct of memory. We believe that the term “empathy” is useful in the same way—as a broad name for a set of more specific constructs.

It is customary in articles about empathy to provide the authors’ definition of the term. Given our view that empathy is essentially a higher-order construct encompassing a number of more specific phenomena, we offer the following definition: *Empathy involves understanding, resonating with, and/or caring about others’ experiences. It encompasses the processes by which we come to experience or understand the internal states of others, as well as the judgments and affective responses that result.* This definition is in keeping with our general “bottom up” approach, which started with identifying constructs that have been manipulated or measured in empirical investigations of empathy. Unlike many articles, however, we do not advocate here for any particular definition of empathy—even the one we just offered. Our goal is different: Regardless of what definition of empathy scholars might favor, we urge them to achieve greater clarity and precision in future research by developing a common lexicon to describe the LOCs. We recommend that, in general, people make less use of the umbrella term and greater use of the more precise lower-order terms.

In the following section we provide a brief overview of the process of creating this common lexicon, and we then briefly describe each of the constructs in the lexicon. A more detailed description of this process is available in the Supplemental Material available online. Finally, we offer recommendations regarding how this lexicon may be used, including examples.

Method

Overview

Our strategy was to use the accumulated expertise of a group of empathy scholars from various academic disciplines, including biological sciences, social sciences, and humanities, in order to arrive at a set of LOCs associated with the global term “empathy.” To minimize the risk of overlooking any relevant LOCs, we used a bottom-up approach; on the basis of their familiarity with the literature, the team members first identified a large set of terms that have been associated with empathy by scholars and researchers. We then reduced the set of terms to a smaller number of categories by grouping similar terms together and eliminating redundancies. Through group deliberations and discussion, this smaller set of dimensions was refined and further reduced. Teams of group members then focused on individual LOCs and formulated definitions and descriptions of each one, which were then brought to the group. After several cycles of discussion and revision, we settled on a final set of constructs. Throughout the process the group worked primarily by consensus, discussing and revising as we proceeded. When it was necessary to reach a conclusion before proceeding, group members were consulted, with all or many responding as their particular expertise and availability permitted.

Step 1: creating the research team

In March of 2021, the two lead authors sent invitations to a number of prominent scholars in the field of empathy, almost all of whom agreed to join the project. Some of them were personally known to the lead authors, and others were known only by professional reputation. These individuals were primarily chosen in order to ensure that the team would represent a variety of academic backgrounds. Within psychology, the social, developmental, comparative, and cross-cultural subfields are represented. In addition, philosophy, neuroscience, primatology, cognitive science, and literary studies are also represented. The lead authors also sought to choose scholars at varying stages of their careers. The original group consisted of 16 people, one of whom had to drop out of the project before it was completed. In addition, one author (Frans de Waal) passed away near the end of the project. The vast majority of the work described here was carried out by the 15 authors of this article. The experience of this group is considerable. Collectively, it has produced over 400 published articles, over 200 chapters or encyclopedia entries, 19 edited or coedited volumes, and 13 books on empathy-related topics. Therefore, we believe the group is exceptionally well suited for this project, not only for its

direct contributions to the literature, but also through its deep knowledge of the subject matter.

Step 2: identifying LOCs

Team members were given a prompt to identify as many constructs as possible that in their estimation fall under the general domain of empathy; team members carried out this task individually without consultation with others (see the Supplemental Material for the full prompt). The full list of terms resulting from this process consisted of 251 terms. To create a more manageable starting point, the two lead authors reduced this large set of terms by using their judgment to create clusters of similar and redundant terms. The resulting 18 possible LOCs appear in the Supplemental Material. There was unanimous agreement among the team that this set of 18 LOCs was an appropriate starting point.

Step 3: reducing the LOCs

The goal of Step 3 was to begin reducing these 18 clusters to a smaller number of LOCs appropriate for the goals of this project. Our approach grew out of earlier discussions within the group, in which it was noted that in projects such as this there is an inherent tension between *lumping* and *splitting*. Reducing a set of constructs to its essential elements often requires the combination of similar constructs into a single one (lumping), but some constructs may contain elements so disparate that it is necessary to separate them into smaller and more coherent ones (splitting). Team members were asked to consider these 18 initial LOCs and indicate their preference for how these LOCs might be lumped, split, retained as is, or dropped (detailed in the Supplemental Material).

For a few of the LOCs, there was substantial support for retaining them, either as is or combined (lumped) with some other constructs. The four with the most support for retention were the LOCs tentatively labeled *compassion* (100% voting to keep or lump), *emotion sharing* (100% voting to keep or lump), *emotional contagion* (100% voting to keep or lump), and *distress* (88% voting to keep or lump); all of these LOCs refer to experiencing some emotional state. Other LOCs receiving considerable support were the LOCs tentatively labeled *perspective taking* (81%), *synchrony* (75%), and *accuracy* (81%). *Prosocial behavior* received slightly less support (69%); comments revealed that some raters felt that prosocial behavior is an outcome that may at times result from empathy-related processes but may also be elicited by a variety of mechanisms having nothing to do with empathy.

The comments offered by the team members also revealed a wide variety of opinions regarding how best to combine various LOCs. For example, four LOCs

(synchrony, emotion sharing, emotional contagion, and psychological overlap)—were mentioned by several team members as candidates for lumping with each other in some form. Since all four of these LOCs seem to deal in some fashion with the ways in which observer and target are similar, we considered this group to make up a *similarity cluster*. A primary task for us was to decide exactly how to deal with this cluster.

Similarly, two LOCs dealing with the accurate perception of others (*accurate inference*, *emotion recognition*) also drew some comments about combining them. There was also some sentiment for placing inferential accuracy with perspective taking. Thus, another task for us was to parse these constructs.

Based on the group's discussions, we made six decisions: (a) to retain the perspective taking, compassion, and distress LOCs as is; (b) to consider the five LOCs addressing the issue of similarity between target and observer (mimicry, synchrony, emotion sharing, emotional contagion, and psychological overlap) and determine the best way to parse this cluster of concepts; (c) to retain accurate inference, possibly lumping emotion recognition with it; (d) to further consider prosocial behavior; (e) to retain projection in some form (possibly lumping it with transportation, psychological overlap, or both; and (f) to drop the remaining initial LOCs.

Step 4: refining the reduced set of constructs

Following this reduction of LOCs, five small working groups were created. They were each charged with providing: (a) a name for, and definition of, a particular LOC; (b) information concerning alternative terms for the construct; (c) information about how the construct is operationalized in research; and (d) details about how the construct might be related to other LOCs (see the Supplemental Material for the instructions and template used to guide this work).

For several groups the process was straightforward, resulting in essentially final versions of seven LOCs (perspective taking, compassion, personal distress, projection, transportation, psychological overlap, mimicry, and synchrony). The group considering the similarity cluster recommended two LOCs (emotional contagion and emotion sharing). The group considering accuracy and emotion recognition recommended a single LOC (accurate inference). The group considering prosocial behavior recommended against its inclusion, arguing that voluntary, intentional, and potentially costly action benefiting others is too different from the other LOCs (which do not necessarily produce prosocial behavior) and can be elicited by a wide range of proximate mechanisms beyond the empathy universe.

At this point the entire team offered comments and suggestions regarding each group's work. In addition to some relatively minor matters, one substantial issue was raised. Several team members felt that the issue of self-other differentiation needed to be more fully addressed (see the next section).

Step 5: selecting the final set of constructs

The group then decided to formally adopt the seven LOCs for which there was broad agreement: sympathy/compassion, personal distress, perspective taking, accurate inference, projection, mimicry, synchrony, and transportation. Further discussion about how best to conceptualize situations in which two or more people experience the same emotion led us to propose three LOCs that would encompass this phenomenon: vicarious affect, emotional contagion, and emotion co-sharing. Finally, and unsurprisingly, discussion of the LOCs continued among the authors during the writing of the manuscript. In successive drafts, additional issues emerged and were resolved, and we made some changes in terminology. The following section presents the final product, which is endorsed by all authors.

The Common Lexicon

Table 1 presents definitions of the LOCs that emerged from this project and a brief list of terms that have historically been employed to describe each one. Because of space considerations, we present below a relatively brief description of each LOC. We strongly urge readers interested in a more detailed account to consult the Supplemental Material, which contains a much fuller description of each LOC, as well as other pertinent information, including a table with examples of common operationalizations of each construct (Table S1) and a matrix displaying some examples of the degree of association that has been found between individual LOCs in empirical investigations (Table S2). Given our belief that the global term "empathy" should be used less and more precise terms used more, we deliberately did not include the words *empathy* or *empathic* in labeling and defining the LOCs. The first three LOCs all have to do with what we might call *emotional congruence*, in which people come to experience the same or similar emotional states.

Emotional contagion

Emotional contagion is defined as occurring when an emotional state in one individual is transmitted to (or "caught" by) at least one other individual who does not

necessarily perceive any clear differentiation between the self and the other. For example, an infant crying in response to the sound of another's cries can be an example of emotional contagion, if one cannot assume that the infant is aware that their cries are a response to the other's distress. (If such awareness can be assumed, these cries would be seen as vicarious affect; see below.) Generally speaking, such an emotional response in the absence of a clear self-other differentiation is often seen as more primitive and perhaps automatic (Decety & Cowell, 2014; Shamay-Tsoory et al., 2009). Thus, this LOC is more frequently used when describing emotional responses in infants and many nonhuman animals for which clear self-other differentiation is assumed to be absent or less sophisticated. However, because humans' subjective experience of self-other differentiation may vary across situations (Preston & Hofelich, 2012), emotional contagion can also occur and play a role in the lives of adult humans.

Vicarious affect

In contrast, vicarious affect is defined as occurring when an emotional state in one individual is transmitted to (or caught by) at least one other individual who possesses at least some understanding of the self-other distinction. This is the construct described in many definitions and historical descriptions of empathy (e.g., Hall & Schwartz, 2019), and it figures prominently in many arguments about empathy and its social ramifications (e.g., Bloom, 2017; Eisenberg et al., 1996). In many cases vicarious affect will be negative in tone (feeling sad when another is sad; feeling anxious when another is anxious). However, it also encompasses situations in which one person's happiness or joy results in similar feelings in another (e.g., Light et al., 2019). Many definitions of vicarious affect require a clear self-other differentiation (e.g., Cuff et al., 2016; Decety & Lamm, 2006; Eisenberg & Fabes, 1990); without it, such emotional congruence would be considered emotional contagion.

Emotion co-sharing

Emotion co-sharing is defined as resulting when interacting individuals come to experience the same or similar emotional state by virtue of their interaction. Here, the term refers specifically to congruence between the individuals' emotional experiences; we do not mean "sharing" in the sense that one person simply talks about (shares) their emotions with another. Emotion co-sharing emerges from the reciprocal interactions of the dyad or group and in essence is a kind of group emotion. For example, consider some friends who are reminiscing

Table 1. Definitions of the Lower Order Constructs (LOCs)

Construct Name [and Related Terms]	Definition
Emotional contagion	Emotional contagion is defined as occurring when an emotional state in one individual is transmitted to (or “caught” by) at least one other individual who does not necessarily perceive any clear differentiation between the self and the other. This LOC is most frequently used when describing emotional responses in infants and many nonhuman animals, for which clear self-other differentiation is assumed to be less sophisticated or absent.
Vicarious affect [emotion matching; feeling with; fellow feeling; state matching]	Vicarious affect occurs when an emotional state in one individual is transmitted to (or caught by) one or more other individuals who possess at least some understanding of self-other differentiation. There is no requirement for interaction between individuals; in fact, the target may be represented with photographs or video. Individuals do not need to be consciously aware of the process. This is the type of emotional congruence described by many definitions of empathy; note that according to these definitions the self-other distinction is necessary to be called vicarious affect.
Emotion co-sharing	Emotion co-sharing occurs when interacting individuals come to experience the same or similar emotional state by virtue of their interaction. This form of congruence does not result simply when one individual observes another; neither is it the result of individuals reacting independently to the same stimulus (like a movie). Emotion co-sharing instead emerges from the reciprocal interactions of the dyad or group and in essence is a kind of group emotion.
Sympathy/compassion [concern; empathic concern; caring]	Awareness of another's suffering, accompanied by other-oriented emotions such as concern and compassion and a motivation to alleviate that suffering. Sympathy/compassion can be viewed as both an emotional response and as a motivation.
Personal distress [empathic distress; egoistic distress; self-focused distress]	Negative affect, often self-focused, that occurs in response to the negative experiences of others and that can produce a motivation to take action to relieve one's own suffering, either through withdrawing or helping.
Perspective taking [mentalizing; theory of mind; cognitive empathy; mental state attribution]	Perspective taking occurs when one individual generates an internal model of another's experience, producing inferences about what the other feels, thinks, wants, or prefers. Such inferences may or may not be accurate.
Accurate inference [empathic accuracy; interpersonal accuracy; interpersonal sensitivity; emotion recognition]	Accurate inference is defined as correct understanding of a target's thoughts, feelings, or posed expressions. It is typically assessed in one of two ways. • <i>Performance accuracy</i> compares observers' inferences about another person to a defined criterion, such as the target's reported thoughts or feelings in a live interaction (i.e., thought-feeling accuracy), or by asking the observer to identify posed facial expressions. All such measures assess accuracy by comparing the observer's judgment with some external standard. • <i>Self-rated accuracy</i> simply asks individuals how accurately they can discern others' internal states. Frequently this takes the form of asking people to respond to items such as “I can easily tell how others are feeling.” Unlike performance measures, self-reports are not compared with any external criterion.
Projection [social projection; assumed similarity]	Projection consists of attributing internal characteristics of the self, such as beliefs, attitudes, traits, and emotional states, to another individual or to a group. This process can occur with or without any conscious intent.
Mimicry [motor matching; imitation]	Mimicry occurs when one individual imitates the motor activity of another (for example, similar facial expressions). It does not need to be bidirectional, nor does it need to be deliberate.
Synchrony [physiological synchrony; behavioral resonance]	Synchrony occurs when two individuals are enacting the same behavioral or physiological pattern in time-locked step, usually in a dyadic or group-level exchange involving matching motor programs, such as in dance or social-affiliation behavior. Unlike mimicry, synchrony necessarily unfolds over time.
Transportation [presence; immersion; absorption; fantasy; engagement]	Transportation is defined as immersion in a narrative story-world, during which one experiences absorption in the narrative physically, cognitively, or emotionally, as if one were present, with an accompanying distancing from one's actual surroundings. The content of the narrative need not be fictional.

about a funny event; as they successively remember one hilarious detail after another, their rising level of amusement is created through their reciprocal interaction. In this LOC, then, an emotional state in one person is not simply transmitted to (or caught by) another person; thus, emotion co-sharing does not result simply when one individual observes a target.

Emotion co-sharing differs from emotional contagion and vicarious affect in that it refers specifically to shared emotions that are jointly generated by the reciprocal interaction between the individuals. Emotion co-sharing also bears some resemblance to concepts such as *positivity resonance* (Otero et al., 2020) and *capitalization* (Gable & Reiss, 2010), both of which refer to multiple individuals simultaneously experiencing positive affect. Both of these are more narrow constructs than emotion co-sharing. Capitalization only occurs as a result of one person sharing good news with another; positivity resonance only refers to positively valenced emotions. There is some evidence that positivity resonance occurs more often in some cultures than others (e.g., Zhou et al., 2024).

Sympathy/compassion

Sympathy/compassion is defined as an awareness of another's suffering, accompanied by other-oriented emotions such as concern and compassion, and a motivation to alleviate that suffering. Other terms for this construct include *concern*, *empathic concern*, and *caring*. It may be distinguished from other similar terms, such as *pity* and *sadness*, which can have additional connotations. The term "pity" may carry with it a note of condescension that sympathy/compassion does not (e.g., Goetz et al., 2010); "sadness" does not include the other-oriented flavor of sympathy/compassion (Shaver et al., 1987).

We employ this compound term because there are some differences in nuance and connotation between sympathy and compassion, arising in part from their different etymological origins. As a result, scholars from different traditions may prefer to use one term over the other. However, from the standpoint of this lexicon the two terms are similar enough to constitute a single LOC. Readers should feel free to use either individual term, or the compound term, when referring to this LOC.

We note that research suggests cultural differences in how people conceptualize and express sympathy/compassion (e.g., Koopmann-Holm & Tsai, 2014; Koopmann-Holm et al., 2021). In addition, anthropologists studying empathy in Pacific Island cultures have identified *love-compassion-concern-pity* as an important cultural virtue (Hollan & Throop, 2011). Interestingly, however, there is evidence in those cultures that such feelings must be acted upon to be seen as meaningful and genuine; compassion

must include "doing," not just "passive experiencing" (Hollan & Throop, 2011).

Personal distress

Personal distress is defined as negative affect, often self-focused, that occurs in response to the negative experiences of others, and that can produce a motivation to take action to relieve one's own suffering, either through withdrawing or helping. We characterize personal distress as often being self-focused because there is evidence that in some situations exposure to a needy target can produce two kinds of distress in an observer: distress for the target and direct distress for oneself (Batson et al., 1997). Personal distress can lead to helping, although not as reliably as sympathy/compassion does (Batson, 2017). Other terms for this construct are *empathic distress*, *egoistic distress*, and *self-focused distress*.

Personal distress is excluded from many definitions of empathy (see Hall & Schwartz, 2019), although it does qualify under some definitions that use empathy as an umbrella term (e.g., Davis, 1994; Preston & de Waal, 2002; Stotland, 1969). The reason for this exclusion is that personal distress is more self-focused (e.g., Batson, 2014), unlike sympathy/compassion, which is characterized by feelings for another. Although both personal distress and compassion may occur in response to a target in need, and although both can emanate from an initial internal matching process that is somewhat vicarious, personal distress and compassion can be distinguished from one another and from vicarious affect by the different physiological responses they evoke (e.g., heart-rate deceleration vs. acceleration; Eisenberg et al., 1988, 1998) and by the different motivational states with which they are associated (motivation to reduce distress of other vs. self; Batson, 1987).

Perspective taking

Perspective taking occurs when one individual generates an internal model of another's experience, producing inferences about what the other feels, thinks, wants, or prefers. Other terms for this construct include *mentalizing*, *cognitive empathy*, *theory of mind*, and *mental state attribution*. The inferences that are drawn about the target might be a specific internal state, such as a thought or feeling, or something broader, such as the target's motivations or overall point of view. It is important to note that the inferences resulting from perspective taking may not be accurate (e.g., Eyal et al., 2018).

As with sympathy/compassion, there is reason to expect some cultural variation in this LOC. Western approaches often seem to assume that it is possible to understand others' internal states with at least some

accuracy. In contrast, Hollan and Throop (2011) argue that Pacific societies (and the Tzotzil Maya of Mexico) often express a belief in what might be called the “opacity of other minds”—a skepticism about being able to know what others are thinking and feeling, and consequently a skepticism about being able to reach accurate inferences. Thus, another way that cultures may differ is with regard to how difficult and efficacious they believe some constructs to be.

Accurate inference

Accurate inference is defined as correct understanding of a target's thoughts, feelings, or posed expressions. Historically, accurate inference is included in many empathy definitions, especially those offered by scholars interested in what is sometimes termed *cognitive empathy* (e.g., Hogan, 1969; Rogers, 1975). Accurate inference is often associated with perspective taking, but it is important to note that perspective taking can be carried out for a variety of reasons, only one of which may be to achieve inferential accuracy; even with that intent, however, there is no guarantee of accuracy. Accurate inference has traditionally been assessed in two fundamentally different ways—through performance measures of accuracy and through self-reported accuracy (see Table 1)—although other criteria, such as consensus judgments, have sometime been suggested (e.g., Funder et al., 1995). In performance measures, accuracy is determined by using criteria such as the target's own self-reported thoughts and feelings (e.g., Ickes, 1993) or some other standard (e.g., posed facial expressions: U.C. Davis Set of Emotion Expressions; Tracy et al., 2009). This issue is further addressed in the Discussion section.

Projection

Projection occurs when an individual attributes internal characteristics of the self, such as beliefs, attitudes, traits, and emotional states, to another individual or group. This process can occur with or without conscious intent. Projection defined in this way (often termed *social projection* or *assumed similarity*) is neutral with respect to any underlying motive, unlike the psychodynamic defense mechanism of projection that results from motivated attempts to manage unconscious anxiety. The concept of projection has figured prominently in concepts of empathy for many years (Lanzoni, 2018).

Within the contemporary empathy universe, projection is often associated with perspective-taking efforts (e.g., Ames, 2004; Nickerson, 1999), though its role-taking process projects the observer into the place of the target. When trying to infer the internal state of another, one may use the self as a starting point (Epley et al.,

2004), a strategy that can produce accurate inferences about the state of the other, particularly when the experiences or traits of the target and observer are similar (Heal, 1996). However, it is often associated with lower accuracy when the experiences or traits of individuals differ (e.g., Hoch, 1987).

Mimicry

Mimicry occurs when at least one individual displays the same or highly similar motor activity as another. For example, while listening to a friend relate a sad story, one's own facial expression may come to resemble theirs. Mimicry does not need to be bidirectional, and the mimicker need not be aware of engaging in the behavior, although this may occur. Mimicry refers only to motor activity and not subjective emotional states. However, it has historically been associated with emotional congruence, and has been implicated as a mechanism contributing to emotional contagion (Hatfield et al., 1994).

Synchrony

In contrast, synchrony occurs when individuals are displaying the same behavioral, physiological, or neurological patterns in time-locked step, often in an activity involving matching motor programs, as in dance or social-affiliation behavior (such as mother-child behavioral synchrony). Unlike mimicry, synchrony necessarily unfolds over time. An observer might unconsciously mimic the sad expression of someone in a photograph; synchrony cannot occur in such a situation. Individuals do not need to be aware of engaging in synchrony, although such awareness may occur. Like mimicry, synchrony has historically been associated with emotional congruence and has been implicated as a mechanism contributing to emotional contagion (Hatfield et al., 1994). Finally, although there are some conceptual overlaps between mimicry and synchrony, research confirms that they are separate constructs with different predictors and implications (e.g., Stosic & Ruben, 2025).

Transportation

Transportation is defined as immersion in a narrative story world during which one experiences absorption in the narrative physically, cognitively, or emotionally, as if one were present, with an accompanying distancing from one's actual surroundings. Other terms for this construct are *presence*, *immersion*, *absorption*, *fantasy*, and *engagement*. In novels and films the people and events are typically fictional, whereas real-life stories about real-world events are narrative nonfiction. Among the LOCs, transportation alone is mediated by narrative, although it

may also involve additional LOCs such as perspective taking, sympathy/compassion, projection, accurate inference, and vicarious affect.

We include transportation as part of the empathy lexicon because of the similarity of the processes and outcomes that are involved when making inferences about, and having emotional reactions to, entities other than oneself. The processes are the same whether these entities are real or fictional; the only difference is the method by which the observer perceives the target. Among other LOCs, transportation has been positively associated with vicarious affect, sympathy/compassion, and personal distress (e.g., Bal & Veltkamp, 2013).

A note on the LOCs

Given the consensus-driven process by which our group operated, readers may wonder whether a different set of empathy scholars would have arrived at the same set of LOCs. It is of course unlikely that another group's lexicon would be completely identical to the one presented here. However, given the nature of the task, we expect it would be similar in an important way. Our focus was on the LOCs used by researchers and reported in scholarly journals over the past several decades. We feel confident that any group undertaking this task would perceive the same basic patterns that we did. In particular, it seems likely to us that other groups would identify the six constructs we have referred to as vicarious affect, sympathy/compassion, personal distress, emotional contagion, perspective taking, and accurate inference. These constructs have been the focus of a very sizable proportion of the empathy research over the last 75 years. Other constructs (mimicry, synchrony, transportation, projection, emotion co-sharing) have not featured as prominently in empirical research, and it is less certain that a different group would have included them. However, we do not view this as a fatal flaw. If we think of the lexicon as a kind of toolbox, we are confident that any group would nominate the same set of most frequently used tools. Although not all tools in the toolbox are used with the same frequency, we believe it is desirable to have them all available.

In this spirit, we have created a website (tinyurl.com/empathylexicon) designed for anyone interested in conducting empirical investigations within the empathy universe, with the goal of helping investigators find the most appropriate way to measure whatever LOC is of interest to them. We hope in this way to make the lexicon as useful and as practical as possible for scholars.

Praxis

In this section, we offer suggestions for how the common lexicon can help improve communication. In brief, we

recommend using the general term “empathy” more sparingly and instead using specific terms that precisely describe the processes and outcomes under study. We recognize that many authors already make such an effort. The purpose of this article is to encourage more of this and thus to help sharpen the nomological network and increase the clarity of empathy research.

We offer specific suggestions below, but in essence they can be reduced to a single recommendation: Use the most precise construct name whenever possible. That is, with regard to any empirically based claim, one should use the nomenclature specific to the LOCs that support that claim. This matters in all descriptions of one's research and its documentation: the title, abstract, summary of previous research, description of methodology and results, and their connection to the existing literature.

We strongly recommend using the more specific terminology in the most “visible” portions of the manuscript: the title and the abstract. These are likely to be the first, and often only, place that readers will be exposed to the authors' claims. Table 2 contains some examples of how the titles of several existing articles might be changed in order to incorporate the common lexicon. Our recommendation regarding the use of article keywords is slightly different. In addition to listing the specific LOC terms, it seems wise to also include the term “empathy,” because it is likely to be a commonly used search term.

When describing background research, we recommend carefully summarizing the empathy measures and manipulations employed in previous studies using the constructs and terminology of the lexicon. Interpreting previous research through the lens of the lexicon may help resolve apparently contradictory findings (such as when scale titles differ from the LOC names that we recommend). It will also make it easier for future readers to understand key patterns in the empathy literature. Discussion sections should similarly use the lexicon's terminology to clarify how the results fit into the larger body of literature for that LOC.

In descriptions of methodology, we recommend eschewing the use of “empathy” almost entirely. All operational definitions, by definition, are specific: Thus, a manipulation of perspective taking is just that (and not an “empathy induction”); a measure of accurate perception of another's emotional state is just that—a correspondence between the target's state and the observer's perception (and not “cognitive empathy”). Because methods always refer to specific tasks, scales, or measures, they require labeling with the LOCs.

An exception to this general rule would be when a particular methodology, measurement, model, or hypothesis includes the word “empathy” in its name, such as the Empathy Selection Task (EST; Cameron et al., 2019), the

Table 2. Applying the Common Lexicon to Manuscript Titles

Original title	Measures or operationalizations	New title
"Empathy and motivation for justice: Cognitive empathy and concern, but not emotional empathy, predict sensitivity to injustice for others"	PT, EC, and PD scales from the IRI	"Empathy and motivation for justice: Dispositional perspective taking and compassion, but not personal distress, predict sensitivity to injustice for others"
"The relations of emotionality and regulation to dispositional and situational empathy-related responses"	PT, EC, and PD scales from the IRI; self-reported state EC and PD; coded facial expressions indicating distress, concern, and sadness	"Relations of emotionality and self-regulation to dispositional or situational sympathy/compassion, perspective taking, personal distress, and emotional congruence"
"Empathic choices for animals versus humans: The role of choice context and perceived cost"	Empathy selection task: participants choose to share, or avoid, the emotional experience of a target	"Choosing vicarious affect for animals versus humans: The role of choice context and perceived cost"
"Individual differences in local gray-matter density are associated with differences in affective and cognitive empathy"	QCAE questionnaire	"Individual differences in local gray-matter density are associated with differences in scores on the QCAE Cognitive and Emotional Empathy scales"
"Reading between the lies: Empathic accuracy and deception detection"	Empathic Accuracy Paradigm	"Reading between the lies: Accurate inference of thoughts and deception detection"
"Changes in dispositional empathy in American college students over time: A meta-analysis"	EC and PT scales from the IRI	"Changes in dispositional compassion and perspective taking in American college students over time: A meta-analysis"

Note: "Original title" refers to the title of the published article; "new title" refers to an alternative title using the lexicon. PT = perspective taking; EC = empathic concern; PD = personal distress; IRI = Interpersonal Reactivity Index; QCAE = Questionnaire of Cognitive and Affective Empathy.

Jefferson Scale of Empathy (JSE; Hojat et al., 2002), or the Empathy Altruism Hypothesis (Batson, 2017). In such instances, the name of the methodology or measurement should be used along with a specification of which LOCs, if any, are under study. For example, the EST presents participants with the opportunity to engage in tasks that could lead to various outcomes, such as experiencing compassion for a target, experiencing the same emotion as the target, or taking the target's perspective. Participants choose between two such tasks, or between one of these tasks and a task instructing them explicitly to "remain objectively detached" from the target. The EST therefore assesses the individual's willingness to encounter specific LOCs, such as sympathy/compassion, vicarious affect, and perspective taking (e.g., Cameron et al., 2019).

We recognize that there will be circumstances in which operationalizations seem to involve more than a single LOC. Asking observers to "imagine what the target is thinking" attempts to manipulate perspective taking but may also lead to projection or increase sympathy/compassion for the target. Although the instructions might lead to feelings of compassion, in our view, such operationalizations should not be described as a compassion

manipulation because they do not attempt to directly create sympathy/compassion (e.g., "as you watch the target, try to feel sympathy and compassion for her"). Compassion may occur, but the manipulation's proximal intent was to induce perspective taking. Thus, when the participant may experience multiple LOCs, the methods should be labeled as closely as possible to the intent of the manipulation, with any consequences also labeled with the relevant LOCs.

When reporting results, we again recommend avoiding the term "empathy" as much as possible. Finding that agreeableness is significantly correlated with trait compassion is more helpfully described in just that way, rather than making the more ambiguous claim that agreeableness is significantly correlated with empathy. A finding that a particular kind of brain activity is more likely in people who score high on a measure of dispositional perspective taking is more usefully described in those terms than by saying it is associated with "cognitive empathy." It is not that the latter descriptions are wrong per se; rather, they are ambiguous, which permits diverse interpretations by readers and invites misunderstandings.

So, when is the general term “empathy” preferred? We believe that general terms are most useful when they refer to generalities. Because empathy is an umbrella term for a set of LOCs, it makes sense to use this term when referring to that set of constructs. An evolutionary account of how empathic capacities might have developed among humans can benefit from a term that represents a set of capacities that correspond to multiple LOCs (e.g., vicarious affect, compassion, perspective taking). A theory paper that discusses the relationship among a number of LOCs might employ the term “empathy” as a shorthand for the set of constructs on which it is focusing.

In short, “empathy” is the preferred term when one refers not to a particular LOC but to a larger set of constructs. Outside of this situation, there may be other times when the general term is appropriate. For example, an article examining how laypeople construe empathy, or one that asks participants to rate something according to their own definition of empathy, would need to make use of this term. Similarly, when reviewing the history of empathy research, using the term “empathy” is perfectly appropriate. Of course, this is by no means an exhaustive list; ultimately scholars must use their judgment about when the general term should be used.

Using existing empathy scales

One of the most common ways to measure empathy-related phenomena is through self-report. Investigations seeking to understand the implications of dispositional empathy almost exclusively use some type of empathy scale. However, viewed through the lens of the lexicon, the content of the most common instruments reveals a complex picture. In Table 3 we list a number of the most widely used empathy measures and indicate how closely their items map onto the LOCs. Some instruments clearly assess a particular LOC and label it with the lexicon’s recommended name. Some scales assess an LOC, but the scale name does not correspond to the lexicon. Finally, and most problematically, some instruments combine content from two or more LOCs into a single scale, include constructs outside the lexicon entirely (such as prosocial behavior or behavioral intent), or both. Such instruments create challenges for scholars aiming to research one or more specific LOCs; they may find it difficult to determine which LOC a given scale actually measures. The scales in this table are by no means an exhaustive list; the 17 assessments included here were simply, in the judgment of the group, among the most prominent measures appearing in the literature. The website created for this project (tinyurl.com/empathylexicon) will be updated periodically to incorporate more scales.

Consider the following two examples. The Basic Empathy Scale (BES; Jolliffe & Farrington, 2006) was

designed to assess two types of empathy: cognitive and affective. An examination of the scale reveals that the items tapping “emotional empathy” measure what the common lexicon refers to as vicarious affect (e.g., “I tend to feel scared when I am with friends who are afraid”). The cognitive-empathy items actually measure self-rated accuracy (e.g., “I can usually work out when people are cheerful”). That is, the “cognitive” items do not assess any cognitive process that might produce accuracy (such as perspective taking) but are concerned only with perceived success at accurately understanding people. These items do not measure actual accuracy in any objective way; they simply ask respondents to report how successful they think they are at this task. (We return to this issue in the Discussion section.) This is a straightforward case in which we can simply replace the broad terms “cognitive and emotional empathy” with “self-reported inferential accuracy” and “vicarious affect.”

In contrast, the Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009) was created to provide a measure of empathy at the broadest level by drawing items from a number of existing instruments (e.g., the IRI, Hogan, and Mehrabian measures; Davis, 1983; Hogan, 1969; Mehrabian & Epstein, 1972). The initial pool of these items was subjected to a factor analysis that forced the items to load onto a single factor, and these results were used to select 16 items for the final version of the TEQ. The items assess a variety of LOCs; 12 of the 16 measure compassion, vicarious affect, personal distress, or self-rated inferential accuracy, and four additional items assess what might be characterized as an interest in other people. Because combining these disparate items and labeling them “empathy” runs counter to the underlying goal of this project, an empathy score on this measure cannot be labeled with an LOC from the lexicon. In our view, scores on this (and similar) measures are unclassifiable by the lexicon. Thus, when describing research using such a scale, it is important to note that multiple LOCs (plus other constructs) have been combined; when choosing a scale for a new research project, our advice would be to select a scale or subscale that unambiguously assesses the particular LOC of interest.

A word of caution

Finally, it should come as no surprise that we also generally recommend that scholars refrain from simply combining two or more existing scales—each of which measures a specific construct—into a measure of overall empathy. Combining disparate constructs into a single one is the antithesis of the logic underlying the common lexicon; doing so runs the risk of turning several interpretable measures of specific constructs into a single uninterpretable combination. Unfortunately, this strategy is

Table 3. Classifying Widely Used Empathy Measures With the Common Lexicon

Existing instruments	What they purport to measure	Common lexicon constructs that they measure
Empathy Scale (Hogan, 1969)	Empathy; cognitive empathy. The Empathy Scale was created by drawing items from the MMPI and the California Psychological Inventory that differentiated between two groups of people earlier determined to be empathic or not. Most of the items have no obvious face validity (e.g., "Disobedience to the government is never justified"; "I like poetry").	Not classifiable. Most of the items have no obvious connection to any of the LOCs.
Questionnaire Measure of Emotional Empathy (Mehrabian & Epstein, 1972)	Emotional empathy. The scale contains items tapping the likelihood of responding emotionally to others in a variety of ways (e.g., "Seeing people cry upsets me"; "I become nervous if others around me seem to be nervous"; "I become very involved when I watch a movie").	Not classifiable. Roughly half the items measure a variety of phenomena including vicarious affect, sympathy/compassion, and personal distress, with the rest measuring other constructs (e.g., "Little children sometimes cry for no apparent reason"; "Lonely people are probably unfriendly").
Interpersonal Reactivity Index (IRI; Davis, 1980)	Perspective taking ("Before criticizing somebody, I try to imagine how I would feel if I was in their place"); fantasy ("I often get deeply involved with the feelings of a character in a film or novel"); empathic concern ("I have tender, concerned feelings for people less fortunate than me"); personal distress ("being in a tense emotional situation scares me").	Perspective taking, transportation, sympathy/compassion, personal distress
Index of Empathy for Children and Adolescents (Bryant, 1982)	Emotional empathy. This scale revised 22 items from the Mehrabian and Epstein measure in order to make them appropriate for younger populations. As with that earlier scale, the Bryant measure assesses a variety of constructs including vicarious affect, personal distress, and compassion.	Not classifiable. The items measure vicarious affect, sympathy/compassion, personal distress, as well as other constructs.
Child Report Sympathy Scale (Eisenberg et al., 1996)	This scale is made up of six items tapping the child's tendency to feel sympathy/compassion for others ("I feel sorry for other kids who don't have toys and clothes"; "I often feel sorry for other children who are sad or in trouble"). Typically, an adult reads the items to the child and then asks how much each item "is like you."	Sympathy/compassion
Empathic Accuracy Paradigm (Ickes, 2001)	Empathic accuracy. This performance test has two individuals engage in an unscripted conversation, which is recorded by two separate cameras, one from each person's point of view. Each person then reviews the recording, indicating the points at which they had a specific thought or feeling. Each person then watches the film again and tries to infer the thought or feeling that the other person reported. Independent coders rate the accuracy of each inference.	Accurate inference (performance)
Reading the Mind in the Eyes Test (RMET; Baron-Cohen et al., 2001)	Theory of mind. This performance test requires the participant to determine the emotional state of a target using only a photograph of the target's eyes. It was developed as a measure of having acquired a theory of mind, or mentalizing. However, it has also been viewed as a measure of social sensitivity or emotion recognition.	Accurate inference (performance measure using consensus judgments as the accuracy criterion)

(continued)

Table 3. (continued)

Existing instruments	What they purport to measure	Common lexicon constructs that they measure
Jefferson Scale of Physician Empathy (JSPE; Hojat et al., 2002)	This scale is made up of 20 items, most of which are best described as measuring beliefs regarding the efficacy of empathy-related physician behaviors on patient outcomes (e.g., “I believe that empathy is an important factor in medical treatments”). A small number of items directly ask about the test-taker’s attempts to take the patient’s perspective (e.g., “I try to imagine myself in my patient’s shoes when providing care to them”). Because all items are combined into a single score, the instrument does not clearly measure any particular LOC.	Not classifiable. The items largely measure beliefs about the importance of empathy, with only a few inquiring about the test-taker’s perspective taking efforts.
Empathy Quotient (EQ; Baron-Cohen & Wheelwright, 2004)	Cognitive empathy (“I am good at predicting what someone will feel”). Later authors argue that the EQ contains three factors: cognitive empathy (“I am good at predicting what someone will feel”), emotional empathy (“I really enjoy caring for other people”), and social skills (“I don’t tend to find social situations confusing”).	Not classifiable. Some items seem to measure self-reported accuracy, but most of them do not.
Basic Empathy Scale (BES; Jolliffe & Farrington, 2006)	Cognitive empathy (“I can usually work out when people are cheerful”) and emotional empathy (“I tend to feel scared when I am with friends who are afraid”).	Accurate inference (self-reported), vicarious affect
Movie for the Assessment of Social Cognition (MASC; Dziobek et al., 2006)	Cognitive empathy. This performance test requires the participant to watch a 15-min movie about four characters getting together for a dinner party. The video is paused 46 times and questions concerning the characters’ feelings, thoughts, and intentions are asked.	Accurate inference (performance).
Questionnaire of Cognitive and Affective Empathy (QCAE; Reniers et al., 2011)	Cognitive empathy (“I can tell if someone is masking their true emotions”; “Before criticizing somebody, I try to imagine how I would feel if I was in their place”). Emotional empathy (“I am happy when I am with a cheerful group and sad when the others are glum”; “I often get deeply involved with the feelings of a character in a film or novel”).	Not classifiable. The items are roughly split between measuring accurate inference (self-reported) and those measuring perspective taking Not classifiable. The items are evenly divided into those measuring vicarious emotion, transportation, and several that fall outside the common lexicon.
Toronto Empathy Questionnaire (TEQ; Spreng et al., 2009)	Empathy. The instrument was created by subjecting a number of items drawn from existing instruments to factor analysis. These measures included the IRI, the Hogan empathy measure, and the QMEE. The final questionnaire included items from each of these instruments.	Not classifiable. The items measure a variety of constructs, including vicarious affect, sympathy/compassion, personal distress, accurate inference (self-reported), and other items outside the common lexicon.
Geneva Emotion Recognition Test (GERT; Schlegel et al., 2014)	Emotion recognition. This performance test requires the participant to determine the emotional state of a target from short audio-video clips of actors portraying 14 emotions.	Accurate inference (performance measure)
Adolescent Measure of Empathy and Sympathy (AMES; Vossen et al., 2015)	Cognitive empathy (“I can easily tell how others are feeling”; “I can tell when a friend is angry even if he/she tries to hide it”). Affective empathy (“When a friend is scared, I feel afraid”; “When a friend is angry, I feel angry too”). Sympathy (“I feel sorry for someone who is treated unfairly”; “I feel sorry for a friend who feels sad”).	Accurate inference (self-reported) Vicarious affect Sympathy/compassion

(continued)

Table 3. (continued)

Existing instruments	What they purport to measure	Common lexicon constructs that they measure
Affective and Cognitive Measure of Empathy (ACME; Vachon & Lynam, 2016)	Cognitive empathy (“I can tell someone is afraid”). Affective resonance (“I enjoy making others happy”; “I often try to help [others] feel better when they are upset”). Affective dissonance (“I love watching people get angry”; “I think it’s fun to push people around once in a while”).	Accurate inference (self-reported) Not classifiable. The items seem to be measuring a general tendency toward benevolence and kindness. Not classifiable. The items seem to be measuring a general tendency to be manipulative and callous toward other people.
Empathy Index (Jordan et al., 2016)	Empathy (“If I see someone who is excited, I will feel excited myself”; “If I hear an awkward story about someone else, I might feel a little embarrassed”). Behavioral contagion (“If I see someone else yawn, I am also likely to yawn”; “I catch myself crossing my arms or legs just like the person I’m talking to”).	Vicarious affect Mimicry

Note: LOCs = lower-order constructs; MMPI = Minnesota Multiphasic Personality Inventory; QMEE = Questionnaire Measure of Emotional Empathy.

seen with some frequency when researchers administer an instrument that contains subscales (such as the IRI) but then sum the subscales into an overall empathy score. Doing so may be especially unwise in the case of the IRI because one subscale (the personal distress scale) is in many cases unrelated, or even negatively related, to criterion variables to which perspective taking and empathic concern are usually related positively (e.g., agreeableness, forgiveness, effective social support). Since researchers who combine IRI scales typically correlate this composite scale with some criterion variable, there is a good chance that they are making it harder to find a significant relationship. Thus, an overall measure can be difficult to interpret and may obscure relationships that would be observed if the scales were kept separate. For the same reason, we also do not recommend combining the empathic concern and personal distress scales into a measure of emotional empathy (e.g., Chrysikou & Thompson, 2015).

However, we recognize that combining the scores from multiple scales is a common practice in the field, and we do not claim that doing so will always produce an uninterpretable or useless measure. The problem is not so much that composite measures are inherently without meaning, but that for such composites it is more difficult to know exactly what that meaning might be. If a scholar combines measures of different LOCs—for example, compassion and perspective taking—and finds that this composite measure is significantly associated with some outcome measure, how is this to be interpreted? Is it more useful to know that the composite is related to the outcome variables than to know that both

compassion and perspective taking were separately associated with the outcome, or that one was associated and the other was not? Weisz and Cikara (2021) note that predictive success is likely to be higher when one examines how different empathy subfacets, like compassion and perspective taking, differentially relate to outcomes such as negotiation. If they have different directions of effect, then only by separating them can we understand the nuances of these processes and their outcomes.

There are undoubtedly circumstances in which a researcher feels it is best to use a composite measure. For example, if two empathy measures are highly correlated, and the researcher does not have separate hypotheses regarding how these measures will be associated with some criterion, then combining them might be useful. Often, however, researchers appear to combine them without any particular rationale or criterion. In the case of composite measures, then, we suggest that authors report the specific constructs that were included in the composite, provide a clear rationale for their use, and test for whether there are differential effects of those constructs before combining them.

Discussion

Over 75 years ago, Reik (1948, pp. 356–357) bemoaned the fact that empathy “sometimes means one thing, sometimes another, until now it does not mean anything.” That pessimistic assessment still seems somewhat accurate today, and this project was undertaken in an effort to improve the situation. We believe that adopting a common lexicon of empathy-related constructs will lead to

clearer and more precise communication among scholars and between scholars and other groups. In particular, it will help improve communication among scholars across the social sciences, biological sciences, and humanities, all of whom are concerned with empathy. Other scholars have undertaken similar projects designed to clarify terminology in their respective fields, and we see our work as part of that tradition. Such projects have often polled large numbers of scholars about the key elements making up some construct, such as emotion (Izard, 2010) or mental-state attribution (Quesque et al., 2024). The latter project overlaps partially with our own, as it focused largely on the LOC that we have termed *perspective taking*. Quesque and colleagues polled over 40 scholars and asked them to vote on which terms should be discontinued and how to replace them. Beyond its specific focus on empathy, the current project differs from that of Quesque and colleagues, and others, in that our smaller group engaged in a highly collaborative process over a substantial period of time, eventually reaching a consensus. Notably, as with all such efforts, we do not see this lexicon as being the last word on the topic. Future scholars can, should, and doubtless will, offer modifications and improvements.

Similarly, there are some issues that—although important—are not the focus of this project and were not discussed at any length. For example, mapping out the neural and cognitive processes underlying the various LOCs is an important future task. Similarly, understanding the relations among these LOCs—how these processes and outcomes interact and influence each other—is a vitally important issue. For instance, when and under what conditions does the process of perspective taking lead to the outcome of accurate inference? How important is mimicry in producing vicarious affect? Addressing these questions, as important as they are, is beyond the modest scope of this project—which is to simply provide a common set of terms to use when investigating such questions. It is our hope that research in all of these areas will be made somewhat easier by employing a lexicon that increases precision in the planning, execution, and dissemination of research findings.

Implications for future research

The aim of this project is to improve communication by proposing a common set of terms to refer to the constructs typically associated with empathy. Thus, it is properly characterized not as an article about theory, but an article about practice. Nevertheless, we believe that adopting this lexicon will have a salutary effect on theorizing as well. We noted earlier how differing operationalizations of empathy can produce very different results regarding whether medical-student empathy declines

during medical school (K. E. Smith et al., 2017). This is far from the only instance of this phenomenon. There are many theoretical questions involving empathy that would benefit from careful attention to the operationalizations that are used. These would include the role of empathy regarding mental health and well-being (e.g., Martingano et al., 2026), possible links between empathy and criminal behavior (e.g., Trivedi-Bateman & Crook, 2022), empathy's contribution to marital well-being (e.g., Verhofstadt et al., 2016), whether empathy makes physicians more effective (e.g., Kim et al., 2004), and connections between empathy and brain activity (e.g., Marsh, 2018). Given that empathy scales are widely used in these research areas and that such scales vary considerably in the actual LOCs that they assess, there is reason to expect inconsistent findings.

Using the lexicon proposed here will improve the scholarly discourse about empathy by reducing the now-frequent confusion and misunderstanding about what empathy is or means. When specific phenomena (e.g., feeling compassion for someone vs. feeling the same emotion as another) are referred to by specific names (compassion vs. vicarious affect) instead of by more general terminology (empathy vs. empathy), communication is more efficient and less prone to misunderstanding. Relatedly, the lexicon will also make it easier for researchers to productively map out the empirical associations that may, or may not, exist between and among the different LOCs identified here. Our goal in this project was to carefully separate, describe, and name the distinct constructs that over the years have been empirically examined in the name of empathy.

The next, critical, step is an empirical one: to begin systematically mapping the ways in which these unique LOCs are associated with one another. In our view, this next step represents the payoff that creating the lexicon provides. With the creation of this lexicon, next steps could include statistical analyses of how LOCs relate to one another, such as using network frameworks (Frey et al., 2017; Y. Huang et al., 2024) or using natural-language methods to examine semantic embeddings of terms (Wulff & Mata, 2026).

More efficient communication has other benefits as well. When investigators using a particular LOC in their research search the literature for that LOC, the search is made vastly more productive when keyword search terms are specific to the scholars' interests. For a scholar with an interest in the accurate perception of others' emotional states, a specific term like "accurate inference" will be far more efficient than one like "cognitive empathy," which can be used to denote a variety of LOCs, many of which do not have to do with actual accuracy.

Finally, and perhaps most notably, readers benefit from clear and specific terminology. Such terminology

makes it possible for readers to immediately know what construct was actually measured in a study, rather than guessing, or mistakenly assuming something other than what was actually being studied. Instead of reading that two groups differ on empathy or emotional empathy and having to then figure out exactly what the researchers mean by that term, readers could instead read that the groups differ in their likelihood of experiencing the same emotion (vicarious affect), or feeling distress (distress), or having feelings of compassion (sympathy/compassion).

Cultural variation

As noted earlier, this article shares a limitation with psychology research in general; all of its authors, and most of the research participants on whom the lexicon is based, are from Western, Educated, Industrialized, Rich, and Democratic (WEIRD) cultures (Henrich et al., 2010; Rad et al., 2018). The dangers of reaching broad conclusions on the basis of such a limited population have become better known in recent years (e.g., Thalmayer et al., 2021), so what implications might this have for the proposed lexicon? In particular, are the LOCs offered here merely an artifact of WEIRD culture? On the one hand, there is some reason to believe that the constructs making up this lexicon exist, and operate similarly, across many different cultures. Evolutionary accounts of empathy argue that important LOCs evolved during our shared ancestral past in support of important goals, such as child-raising and in-group helping (Chiao, 2017; Decety et al., 2012; Goetz et al., 2010; Gonzalez-Liencre et al., 2013). As a result, relatively automatic emotional responses to another's misfortune, such as vicarious affect, compassion, and personal distress, may well be universal. The same would likely apply to other automatic processes, such as mimicry and synchrony. Similarly, evolutionary accounts also argue that cognitive skills required to infer others' intentions and motives offer substantial adaptive advantages for members of highly social species such as ours (A. Smith, 2006).

Supporting this interpretation is the fact that many empathy scales developed by Western scholars have been successfully translated into the languages of many non-Western cultures, including Chinese (e.g., Zhao et al., 2017), Japanese (e.g., Himichi et al., 2017), Korean (e.g., You et al., 2018), Farsi (e.g., Wind et al., 2021), Indonesian (Dewi et al., 2015), Thai (Sathaporn & Pitanupong, 2022), and Arabic (Chokri et al., 2024). This suggests at the very least that some non-Western scholars view the LOCs as relevant and useful in their cultures. Indeed, there has been considerable cross-cultural usage of the constructs and measures we describe in this article, including in the global South (Aival-Naveh et al., 2019; Jami et al., 2024). Much of this research has been devoted

to exploring possible differences between cultures on various measures of empathy and how these differences in empathy predict societal-level outcomes (Aival-Naveh et al., 2019; Chopik et al., 2017; Jami et al., 2024; Wu & Keysar, 2007).

A deeper question is whether the constructs function similarly across cultures. Put differently, do cultures differ in how empathy operates, what it is related to, or what it means? Few studies have thus far examined this issue, but the existing evidence suggests some similarity. One study that did so was Melchers et al. (2016), which examined the correlations between dispositional empathy (the EQ scale and the IRI) and various measures of personality. That study found little difference in the empathy-personality correlations across cultures, which could be taken as consistent with the idea that empathy, as measured by the lexicon, operates in the same way across cultures. Similarly, a meta-analysis by Yavuz et al. (2024) found that feelings of sympathy/compassion were positively associated with measures of emotional regulation and that this relationship was found in both Western and non-Western populations. Thus, it seems to us likely that the LOCs described here are—if not universal—relevant across many world cultures. It must be emphasized, however, that just because translated scales have been used in non-Western cultures by no means guarantees conceptual equivalence.

Indeed, cultures seem very likely to differ with regard to how the LOCs are experienced or expressed. Cultures may differ in the salience or importance that particular LOCs have for members of those cultures, how they are appraised and experienced, the individual differences and situational contexts that may elicit them, norms and rules about their usage and expression, developmental progression of them, and physiological markers of them, including neural activity (Cheon et al., 2010; Chiao, 2017).

Take as an example the sympathy/compassion LOC. Evolutionary accounts suggest that feelings of compassion and tenderness have their roots in natural selection (the need for humans to care for vulnerable offspring; Batson et al., 2005; Chiao, 2017). But there is evidence of cultural variation as well. Psychological research has demonstrated cultural differences in how people conceptualize and express sympathy and compassion (e.g., Koopmann-Holm & Tsai, 2014; Koopmann-Holm et al., 2021). Anthropologists studying empathy in Pacific Island cultures have identified “love-compassion-concern-pity” as an important cultural virtue (Hollan & Throop, 2011), which seems to overlap, at least in part, with the sympathy/compassion LOC. Interestingly, however, there is also evidence in those cultures that such feelings must be acted upon to be seen as meaningful and genuine; empathy must include “doing,” not just “passive experiencing” (Hollan & Throop, 2011). In a similar vein, Tan and La Londe (2024) described Confucian approaches to

empathy that emphasized compassion (*ren*) as rooted in authenticity and self-awareness (*zhong*). *Zhong* in part requires that one carry out one's duties. Similarly, Hara (2006) argued that the Japanese concept of *omoiyama*—generally defined as a sensitivity to the experiences of others—also includes an expectation that this sensitivity leads to action. In contrast to individualistic Western cultures in which compassion can motivate helping behavior, but does not mandate it, some non-Western cultures highlight the obligation that can come with compassion.

One way of thinking about this issue is that an LOC (in this case sympathy/compassion) represents the core of the construct—its essence—and that customs and norms shape the specific ways that LOCs operate in that culture. This is of course just one example; cultural variations are endless. Our belief is that the lexicon presented here is a useful initial step toward better communication, but we also readily acknowledge that the expression of LOCs across cultures will undoubtedly vary. Future research into these matters may well lead to revisions of the lexicon. We also believe that this future work will be easier to conduct, and explain, when a common terminology is used to describe core constructs.

Conclusion

It is perhaps auspicious for society that scholarly interest in empathy has vastly increased in the last quarter century. If we understand, feel with and for, and want to help others—especially those who are suffering and in need—then we are poised to foster a happier, healthier, more equitable society. However, for scientific research to be valuable, it must be clear and accurate. Currently we are producing an overwhelming amount of research that is hard to implement in the real world because of problems caused by imprudent terminology. By adopting some standards for precision when we discuss the empathy universe, we can vastly improve the science's specificity and accuracy, which in turn will improve our ability to foster empathy where needed.

The umbrella term “empathy” can be useful when used appropriately. However, when the same term is routinely used to denote a variety of specific constructs under the umbrella, its use becomes an impediment to communication. In a way, the term “empathy” may be like a potent spice; it is most effective when used sparingly. We therefore believe it has a place—but a more limited one—in discourse on this topic. During a lengthy process of debate, conversation, and compromise, we came to the shared belief that the advantages of the common lexicon will far outweigh the temporary inconvenience of adjusting to new terminology. We commit to using the lexicon in our work going forward, and humbly invite you to join us.

Transparency

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Author's Note

The first and second authors are listed in order of contribution as the organizers of the effort. The remaining authors are listed alphabetically as equally contributing members of the research group.

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Supplemental Material

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Note

1. The theoretical debate between Batson and Prinz/Bloom is complex, and we do not mean to suggest that the only difference between the two positions is one of terminology. We highlight here the fact that they do in fact use the same term to refer to clearly different constructs.

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