

Personality and Social Psychology Bulletin

<http://psp.sagepub.com/>

Giving Birth to Empathy: The Effects of Similar Experience on Empathic Accuracy, Empathic Concern, and Perceived Empathy

Sara D. Hodges, Kristi J. Kiel, Adam D. I. Kramer, Darya Veach and B. Renee Villanueva

Pers Soc Psychol Bull published online 29 October 2009

DOI: 10.1177/0146167209350326

The online version of this article can be found at:

<http://psp.sagepub.com/content/early/2009/10/29/0146167209350326>

Published by:



<http://www.sagepublications.com>

On behalf of:



Society for Personality and Social Psychology

Additional services and information for *Personality and Social Psychology Bulletin* can be found at:

Email Alerts: <http://psp.sagepub.com/cgi/alerts>

Subscriptions: <http://psp.sagepub.com/subscriptions>

Reprints: <http://www.sagepub.com/journalsReprints.nav>

Permissions: <http://www.sagepub.com/journalsPermissions.nav>

Giving Birth to Empathy: The Effects of Similar Experience on Empathic Accuracy, Empathic Concern, and Perceived Empathy

Personality and Social Psychology Bulletin
 XX(X) 1–12
 © The Author(s) 2010
 Reprints and permission: <http://www.sagepub.com/journalsPermissions.nav>
 DOI: 10.1177/0146167209350326
<http://pspb.sagepub.com>


Sara D. Hodges,¹ Kristi J. Kiel,² Adam D. I. Kramer,¹
 Darya Veach,³ and B. Renee Villanueva⁴

Abstract

This study examined how having had a similar experience to a target person's experience affected three facets of empathy: empathic concern, empathic accuracy, and perceived empathy. Women who had never been mothers, who were pregnant with their first child, or who had just given birth to their first child (20 in each group) served as perceivers, watching videotapes of new-mother targets ($N = 20$) and providing measures of emotional and cognitive empathy. When perceivers had experienced the same life events as the targets, they expressed greater empathic concern and reported greater understanding of targets. However, experience had a much smaller effect on empathic accuracy, limited to comparisons between new-mother and never-pregnant perceivers and only for accuracy at guessing stereotypic attitudes, not individual thoughts. Perceived empathy, in contrast, appeared to be influenced by targets' knowledge of whether perceivers had experienced similar events.

Keywords

empathy, empathic accuracy, life experience

Received September 11, 2008; revision accepted August 10, 2009

The idea that having had a life experience similar to that of another person will help us understand that person is well entrenched in Western culture. We are admonished to “walk a mile in another guy's moccasins” to see things from his perspective, and we cluck assuredly that we understand someone's story because “we've been there too.” Is this widespread faith in the power of experience justified? If so, it should be possible to identify how experience makes us more empathic. Greater understanding could occur through a direct influence, stemming from the knowledge acquired with experience, or possibly by some other route, such as by changing the nature of the interaction between the empathizer and the target of empathy.

The most extensive empirical investigations of experience's effect on empathy have come from clinical and counseling studies exploring whether similarities between client and therapist lead to greater clinical empathy. This literature shows mixed evidence at best, with null results (i.e., no effect of similar experiences) more often than not. As is the case in empathy studies generally, these clinical studies reflect wide methodological variations, particularly in the way similarity is defined and in how empathy is measured. In many of the clinical studies, similarity is of the demographic variety. These studies generally find that therapists who are the same sex, age, and race as their clients hold no empathic advantage over those who differ on these

dimensions (Banks, Berenson, & Carkhuff, 1967; Halpern, 1977; Robiner & Storandt, 1983), although there are exceptions (e.g., Grantham, 1973). Other studies go beyond simple demographics to consider whether clinical empathy is increased when client and therapist share some life-altering condition, such as being alcoholic, where the advantage of similar experience is mixed (Kirk, Best, & Irwin, 1986; Lawson, 1982), or being deaf, where experience appears to have no effect (Haley & Dowd, 1988).

Studies of clinical empathy and experience also may show contradictory or mixed results because they use a wide range of dependent variables to measure empathy. Many of these studies use expert ratings by trained coders or clinical supervisors who rate the therapist's success at achieving empathy. These measures have the advantage of reflecting both empathic concern (compassionate emotions felt for the client) and empathic accuracy (the cognitive ability to

¹University of Oregon, Eugene OR

²Eugene, Oregon

³Educational Policy Improvement Center, Eugene OR

⁴Jasper Mountain Safe Center, Jasper, OR

Corresponding Author:

Sara D. Hodges, Department of Psychology, University of Oregon, Eugene, OR 97403-1227

E-mail: sdhodges@uoregon.edu

accurately infer what the client is thinking or feeling). However, for the latter, ratings assume that experts actually know what the client is thinking or feeling, which is debatable. Viewing empathy as “interactive”—emerging between two people (see Chung & Bemak, 2002)—requires a different approach that has been used in some clinical studies, which is to ask clients about their perceptions of the therapist’s empathy. These ratings may be highly subjective, but they have been shown to predict successful therapeutic outcomes when expert ratings did not (Free, Green, Grace, Chernus, & Whitman, 1985). However, most studies measuring this construct of “perceived empathy” (empathy as rated by the target of empathy) also find no evidence that client–therapist similarity improves the interaction (e.g., Haley & Dowd, 1988; Kirk et al., 1986; but see Banks et al., 1967).

Thus, studies of clients and therapists present weak support at best for an experience-based empathy advantage, regardless of the empathy measure. But what about empathic understanding that occurs outside clinical contexts? After all, the words, “I’ve been there too” are uttered more frequently by friends and neighbors than they are by therapists, whose clinical training likely discourages too much self-disclosure. Outside of therapy, results again differ depending on how empathy is defined. Various empathy theories divvy up the construct into several subcomponents, often with a distinction between affective (e.g., empathic concern) and cognitive (e.g., empathic accuracy) components. Perceived empathy—how well understood the target feels—has received little attention outside of clinical work.

Early studies by Stotland (1969) and Krebs (1975) concluded that similarity did increase empathy, but similarity in their studies was often defined in terms of similar personalities, and they used physiological measures that we now know capture an emotion more akin to personal distress than empathy (for more about this distinction, see Batson, Fultz, & Schoenrade, 1987). However, Krebs also asked participants how much they identified with the other person and found that participants who saw a similar other receive a shock reported that they identified more with the other person, relative to participants in other conditions who either saw a dissimilar other receive a shock or saw a similar other receive an innocuous outcome. This identification variable is conceptually similar to later models of empathy that emphasize perceived overlap between the empathic perceiver and target (e.g., Davis, Conklin, Smith, & Luce, 1996).

Some recent studies have more closely approximated the circumstances that prompt people to say they have “been there” by using similar life experiences as an operationalization of similarity and empathic concern as a measure of empathy. Batson and his colleagues (Batson et al., 1996) found that unpleasant experiences in the past (such as adolescent acne or being dumped by a romantic partner) resulted in higher reports of empathic concern for a target who had

also had these experiences—but only for females. Echoing the Batson et al. (1996) results, Barnett, Tetreault, and Masbad (1987) found that women who identified themselves as rape victims expressed more empathic concern for a woman (who was an actress) describing her rape experience.

Based on these last two studies, similar life experience appears to increase empathic concern, at least among women. Empathic concern is undoubtedly an important component of empathy and has a strong positive relationship to empathic behaviors such as helping (Coke, Batson, & McDavis, 1978). However, similar experience seems to promise more than just feeling concern for a similarly fated person—it also hints at insight into what that person is thinking. In other words, “everyday empathy” includes both an emotional response and the more cognitive construct of empathic accuracy. Stinson and Ickes’s (1992) study of friends hints at a possible connection between experience and empathic accuracy by comparing the empathic accuracy of pairs of friends (who might be expected to have had some similar experiences) with that of strangers. Using Ickes’s (1993) empathic accuracy paradigm, in which perceivers try to infer the thoughts targets reported earlier, Stinson and Ickes found that friends did indeed have greater empathic accuracy. This effect appeared to be almost entirely mediated by friends’ advantage for a particular kind of thought: Friends performed better because they were better at inferring each other’s thoughts about incidents and experiences that occurred at a time and place other than the present, incidents that friends quite possibly (but not necessarily) had shared.

When exploring the relationship between similar experience and empathic accuracy, a key consideration is that people may incorrectly assume that others’ experiences are much like their own rather than paying attention to what others tell them about idiographic elements of the experience. Numerous accounts of the “false consensus effect” (Marks & Miller, 1987) and projection (Hodges, Johnsen, & Scott, 2002; Krueger & Clement, 1994) demonstrate a persistent tendency for people to view others as being more like themselves than those others actually are. On the other hand, to the extent that particular life experiences (such as having a child or being the victim of trauma) *do* have some core similarities across people, using one’s own experience to understand someone else’s might be a useful tool because it brings a perceiver more in touch with the average or stereotypical response.

Finally, both the assuring manner with which perceivers deliver the news that “they’ve been there too” and the fact that targets seek out others who have shared their experiences suggest that *perceived empathy* may also be affected by similar experience; however, few studies have explored this question. Other lines of research do not directly measure perceived empathy but suggest mechanisms through which similar life experience may affect social interactions and

possibly perceived empathy. For example, Lehman, Ellard, and Wortman (1986) suggested that people who have been through traumatic experiences may be less likely to assume that it is unhealthy for other victims of similar traumas to dwell on negative aspects of the experience. Past victims may realize the importance of processing the event, whereas people who have not been through such a trauma may be more concerned about the victim's negative affect. Lehman et al.'s work hints that one's own experiences do not necessarily lead to a better understanding of *specific* details of another person's similar experience but that experience may change one's response to another person in ways that are comforting or indirectly convey greater empathy.

The present study was conducted with the following goals: First, empathy has been consistently identified as a multidimensional construct (Davis, 1983; Duan & Hill, 1996; Hodges & Biswas-Diener, 2007) composed of related, but separable, strands of a whole. Rather than measuring just one of these components, as many past studies have done, we considered the possibility that these strands might not all be affected the same way by similar experience. We measured three components of empathy: perceiver empathic concern, perceiver empathic accuracy, and target's perceived empathy.

In addition, we were interested in "everyday empathy" that occurs outside of therapy (although the line between clinical empathy and everyday empathy is not a hard one—it is important to remember that interactants in therapy sessions bring everyday expectations about empathy with them to therapy). Are our culture's aphorisms about experience and empathy borne out in everyday experience, and if so, are they borne out equally across different facets of empathy? Knowing the answer to this second question can provide insight into what cues people attend to and what they mean when they say another person is "empathic."

Finally, we wanted our event that constituted similar life experience to be of the type and magnitude that could spontaneously prompt people to say, "Oh, I know just what you mean—I've been there too." Given practical and ethical concerns about the kinds of experiences we could manipulate in the lab, this ruled out a true experiment (and its advantages) in exchange for the opportunity to study the kind of experience that produces complex, potentially long-term, and widespread changes in a person's identity. Thus, we chose to use the experience of new motherhood for several reasons: (a) Having one's first baby is clearly acknowledged as a major life event, affecting virtually every dimension of someone's life; (b) despite wide variation in women's new motherhood experiences, there is little ambiguity about whether a woman has had this experience; and (c) anecdotally, motherhood seems to bring "membership privileges" in a new "club"—among other things, it authorizes "club" members to freely dispense advice to other new and expectant mothers.

There was one additional advantage of using birth as the chosen experience: There is a convenient 9-month stage (pregnancy) during which women are anticipating the experience of motherhood. By studying women who were pregnant with their first child, in addition to those who were new mothers and those who had never been pregnant, we gained an intermediate level of experience. The pregnant women in our study knew with a fairly high level of certainty that they would soon be new mothers, moving them several steps closer to the experience than never-pregnant women, without actually having it.

Method

Participants

Four groups of women participated in this study: Twenty served as *new-mother targets* who described their experiences of new motherhood on videotape. These women were recruited from the community by means of flyers, e-mails, and direct appeals at parenting classes. Most women were paid \$15 for participating in the study.¹ To be eligible to participate, the new mother's first child had to be between 2 and 4 months old. The targets' average age was 28 (range = 21 to 38), and all but one were Caucasian. The targets tended to be fairly well educated: All had at least some college. Of those who provided marital information (15), 80% were married or engaged to the baby's father.

The other three groups of participants served as perceivers who watched the videotapes of the targets describing their experiences. Twenty women served as *new-mother perceivers*. These women fit the same criteria as the new-mother targets (first child between the ages of 2 and 4 months) and were recruited in the same ways. These women (and the other two groups of perceivers described next) were paid \$10 for their participation. The average age of these new-mother perceivers was 30 (range = 20 to 43), all had at least some college education, and 17 of the 18 who responded were either married, engaged to, or living with the baby's father. All but one were Caucasian.

Twenty women served as *pregnant perceivers*. These women were recruited from the community by flyers, e-mail announcements, direct appeals at birthing centers and prenatal classes, and word of mouth by other participants in the study. To be eligible to participate, these women had to be at least 4½ months pregnant with their first child (symbolically "halfway" through pregnancy). The pregnant perceivers who participated were on average 54 days ($SD = 37.28$ days) from their due date, but they ranged from being 2 days from their due date to more than 4 months (126 days). Their average age was 32 (range = 21 to 40) and like the new mothers in the study, they tended to be fairly well educated: All had at least some college. Of the 17 who responded to the question, all were either married or living with the father of the expected

baby. Of the pregnant perceivers who reported their race (18), all but one were Caucasian.

The final group of 20 women served as *never-pregnant perceivers*. These women were recruited from the community by flyers, e-mail, and word of mouth by other participants. These women reported never being pregnant and never having raised a child (including adopted children, stepchildren, or siblings). They resembled the other participants in the study, with an average age of 29 (range = 20 to 38). All who responded (18) reported at least some college. Twelve of 18 reported that they were married, engaged, or living with a long-term partner. Of the 19 responding to the question about race, 13 reported they were Caucasian, 2 were Native American, 1 was Hispanic, and 3 said they were Other.² Of the 18 women who responded, only 2 said “no” to a question about whether they had future plans for children. Ten said “yes” (they planned to have children) and 6 said “maybe.”

Procedure

The study took place in three sessions: an initial target session, a perceiver session, and a target follow-up session.

Initial target session. During the first phase of the study, new-mother targets were asked to describe their experience of new motherhood on videotape, responding to open-ended questions (e.g., “Describe your experiences as a new mother. How has your life changed?” and “How did you cope with the changes in your life since becoming a mother?”) that were asked by an experimenter off camera. The resulting videos were about 5 min.

Targets then watched the video they had just made, and following Ickes’s (1993) empathic accuracy paradigm, they were asked to stop the videotape at any point at which they remembered having had a thought during the interview. They wrote down the content of this thought and the time on the videotape counter. After recording their thoughts, targets completed the Maternal Attitudes Questionnaire (MAQ; Warner, Appleby, Whitton, & Faragher, 1997), a 14-item questionnaire designed to measure new mothers’ adjustment with statements such as “I feel proud of being a mother” and “I have resented not having enough time to myself since having my baby.” Agreement with the statements was answered on 4-point Likert-type scales (1 = *strongly agree*, 4 = *strongly disagree*).

Perceiver phase. Each target’s videotape was viewed individually during the perceiver phase by three perceivers: a new-mother perceiver, a pregnant perceiver, and a never-pregnant perceiver. Essentially, the three perceivers were yoked to a single target. Because our key question was whether “experience matters,” we needed a range of targets to be more confident that our results were truly the result of similar experience and were not driven by the specific qualities of a particular target. Furthermore, by yoking three

perceivers to the same target, any eccentricities of a particular target were shared by the three perceivers, allowing a more precise allocation of variance attributable to experience.

Perceivers began by watching a new-mother target’s videotape and then completing a self-report empathy scale (Batson et al., 1996). Six of the 7-point items were designed to capture empathic concern (e.g., participants were asked how “compassionate” and “moved” they felt in response to seeing the target’s video) and eight items were designed to tap personal distress (e.g., the extent that perceivers felt “perturbed” or “troubled”).

Perceivers then watched the videotape a second time, but this time the experimenter stopped the videotape at the same points that the target had stopped it, and perceivers were asked to write down their best guess as to what the target was thinking. Next, perceivers were given a variation of the MAQ that targets had completed, with the questions rephrased to be about the target. Thus, for example, the question “I feel proud to be a mother” became “She feels proud to be a mother” with “she” referring to the target mother. These inferences and questionnaire responses were used to compute empathic accuracy (described later).

In the next phase of the session, perceivers were given the following instructions to write a letter to the target:

We would like you to write a letter to the target who talked about her new motherhood experience in the video you saw. Although we realize that you don’t know her very well, try to write the kind of letter that you would write if you were her good friend or trusted advisor. What do you think about her experience? What do you want to tell her? The target will actually get a chance to read this letter . . . so please really write **it to her.**

In our quest to discover what naturalistically occurs between people with similar experience, we kept the letter instructions minimal.

Last, after writing letters, perceivers were asked some final questions about the target and her experience, including how well they thought they understood the target and her situation (on a 9-point Likert-type scale). If perceivers themselves were new mothers, they had one additional task: They completed the MAQ about their *own* motherhood experiences.

Target follow-up session. After one of each type of perceiver had viewed a target’s videotape, we invited the target back to the lab again to collect measures of perceived empathy. Targets were given a copy of the thoughts they reported at the initial session. They were then given the inferences and letter from each of the perceivers in turn. The order in which they received materials from the three perceivers was randomized, and they were not told which perceiver (i.e., new mother, pregnant, or never pregnant) the materials came

from, although they did know that they were receiving responses from one of each type of perceiver. Targets were first asked to read each inference and rate how closely it captured their original thought, using a 3-point scale based on Ickes's (1993) empathic accuracy coding (0 = *not at all the same as what I was thinking*, 1 = *somewhat the same as what I was thinking*, 2 = *essentially the same as what I was thinking*). They then read the same perceiver's letter and, based on the letter, rated how well the perceiver understood them (on a 9-point Likert-type scale). Then, thinking about both the inferences and the letter, they were asked (also on a 9-point Likert-type scale) how well the perceiver understood the target's experiences. This same procedure was then repeated with the other two perceivers' inferences and letters.

Additional Coding

Empathic accuracy. In addition to the targets' ratings of how accurate perceivers' thought inferences were, four independent coders ($\alpha = .88$) rated the accuracy of the inferences, using Ickes's (1993) scale (0 = *not at all the same as what the target was thinking*, 1 = *somewhat the same*, 2 = *essentially the same*).

Letter variables. All of the perceivers' letters were coded by one research assistant, and a subset of 15 letters was coded by a second research assistant to determine reliability. The variables coded in the letters were as follows (the correlation between the two coders' ratings follows in parentheses):

- Whether perceiver revealed her perceiver type (new mother, pregnant, or never pregnant; $r = 1.0$)
- Number of positive comments made by perceiver, including compliments, encouragement, and admiration ($r = .82$)
- Number of negative comments made by perceiver, including references to fear, frustration, and difficulties ($r = .91$)
- Number of suggestions given to target ($r = .98$)
- Degree of similarity noted between perceiver and target rated on a 3-point Likert-type scale (0 = *no similarity*, 1 = *some similarity*, 2 = *extensive similarity*; $r = .95$)
- Perceiver's level of self-disclosure, rated on a 5-point Likert-type scale (1 = *no self-disclosure*, 5 = *very extensive self-disclosure*; $r = .87$)

Difficulty of inferences. Targets' reported thoughts ranged from those that were extremely transparent (i.e., they reported thinking virtually the same thing they were saying on the videotape) to those that were nearly impossible to guess. To assess this difficulty, as a follow-up, each target's video was shown to between 4 and 11 undergraduate psychology students. Each of the undergraduates (19 males, 17 females) watched either four or five target videotapes. The

videos were stopped at the same points where the targets had stopped to record their thoughts, but instead of being asked to infer the targets' thoughts, the undergraduates were provided with copies of the targets' thoughts and were asked to rate how hard they thought it would be to infer the thoughts from the videotape, on a scale from 1 (*very difficult to infer given the immediate context*) to 3 (*easy to infer given the immediate context*).³

Results

Overview

In the analyses that follow, we seek to identify exactly *which* strands of empathy are affected by personal experience. First, we examine how experience changes perceivers' feelings of empathy, specifically looking at empathic concern and understanding for the targets. Next, we examine how it affects perceivers' empathic accuracy, using Ickes's (1993) measure of empathic accuracy and accuracy at guessing targets' general feelings about motherhood on the MAQ. The latter was additionally broken down into stereotype and differential accuracy, and we explore the extent to which perceivers who were also new mothers might be projecting their own experiences onto the targets. Finally, we examine how level of experience affects targets' perceived empathy—that is, how understood they felt by the perceivers—and what appears to be driving those perceptions.

Our primary comparison is between women who clearly had the experience (new mothers) and women who did not (never pregnant), but in addition, we explore the status of “anticipatory experience” (being pregnant) by comparing these women to women with “full” experience (new mothers). In our analyses, we decompose the perceiver type variable into two tests: whether new mothers differ from never-pregnant women and whether new mothers differ from pregnant women. As such, we use a priori planned contrasts to test our hypotheses, rather than post hoc analyses, but we also report omnibus main effect *F* tests for completeness.

Feelings of Empathy Within Perceivers: Empathic Concern and Understanding

We computed the mean of Batson's six empathic concern adjectives and the mean of Batson's eight personal distress adjectives (e.g., Batson et al., 1996). A repeated measures ANOVA on empathic concern, with the repeated factor being empathic concern from each of the three types of perceiver who viewed the same target, suggests that personal experience increases empathic concern: The closer the group's experience to new motherhood, the more empathic concern they reported, $F(2, 38) = 11.16, p < .001, \eta^2 = .37$ (see means in Figure 1). Contrasts comparing new-mother perceivers to never-pregnant perceivers and comparing new mothers to

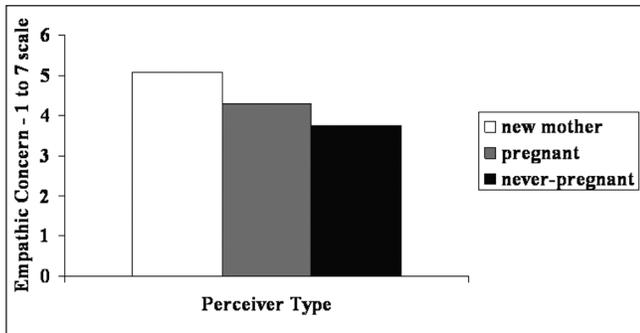


Figure 1. Perceivers' reported empathic concern

pregnant perceivers were both significant, $F(1, 19) = 32.06$, $p < .001$, and $F(1, 19) = 6.76$, $p = .02$, respectively. The three groups did not differ in the amount of personal distress they reported in response to the targets, $F(2, 38) = 1.11$, $p = .34$, $\eta^2 = .055$; mean distress across all perceivers was fairly low ($M = 1.42$).

A similar analysis was performed on perceivers' self-reported ability to understand the target, which again produced a stair-step pattern of results similar to that for empathic concern. The three groups differed significantly (see Figure 2), $F(2, 38) = 4.95$, $p = .012$, $\eta^2 = .21$, with new mothers differing from never-pregnant perceivers, $F(1, 19) = 8.19$, $p = .01$, and a marginal difference between new mothers and pregnant perceivers $F(1, 19) = 4.04$, $p = .06$. In sum, empathic concern and related feelings of empathy within the perceivers appear to be robustly affected by personal experience.

Empathic Accuracy

We computed two Ickes-style empathic accuracy scores: First, using the four coders' accuracy ratings of a perceiver's thought inferences, we averaged across inferences for the target and then across coders. Because each thought was scored on a scale from 0 to 2, the average scores were then divided by 2 to form a more intuitive scale ranging from 0 to 1.0 (with 1.0 representing maximal accuracy on every inference; this conversion is standard in the Ickes paradigm). Second, we computed a similar score using only the target's own accuracy ratings of the perceiver's inferences.

Coders' and targets' ratings of empathic accuracy on the inferences were moderately correlated, $r = .35$, $p = .005$. A doubly repeated measures ANOVA was estimated, using perceiver type as one repeated measure and the two measures of empathic accuracy (coders' and target's) as the other. No significant differences were found among the three groups of perceivers, $F(2, 38) = 1.64$, $p = .21$, $\eta^2 = .08$ (see Figure 3). There was a main effect of empathic accuracy measure, with targets giving higher empathic accuracy ratings than coders, $F(1, 19) = 5.13$, $p < .04$, $\eta^2 = .21$. Perceiver type and measure of empathic accuracy did not interact, $F(2, 38) = .59$, $p > .50$,

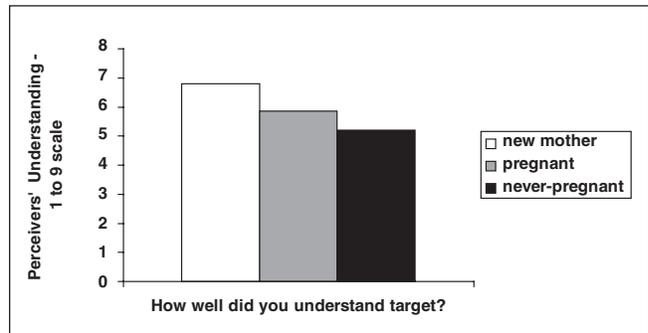


Figure 2. Perceivers' ratings of understanding

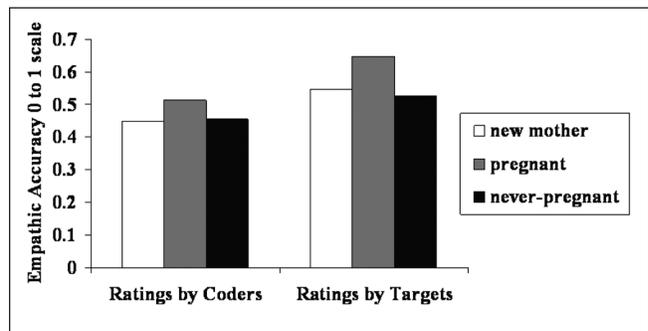


Figure 3. Perceivers' empathic accuracy

$\eta^2 = .03$. These results did not change even when we covaried the difficulty of inferring a particular target's thoughts (a correction that has also been used by Simpson, Ickes, & Blackstone, 1995) using difficulty ratings provided by the separate sample of undergraduates. In sum, personal experience appears to have had no effect on perceivers' ability to guess target's specific thoughts.

In addition to looking at perceivers' ability to guess what a target was thinking at a particular moment (as is the case for Ickes's, 1993, measures), we also looked at how well perceivers were able to guess targets' *general* reactions to new motherhood on the MAQ. We conducted hierarchical linear modeling (HLM) analyses using the statistical computing program R (Fox, 2002), treating target as a random grouping factor.⁴ First, we computed the absolute difference between each perceiver's rating of the target on each of the 14 MAQ items and the target's actual rating on that same item. These difference scores ranged from 0 to 3, with 0 being a correct guess (see Figure 4). We used these difference scores in a two-level model, with individual MAQ items as the most basic observation, the different targets at Level 1, and perceiver type (new mom, pregnant, or never pregnant) at Level 2. To directly test the effect of experience, we used dummy coding to examine two contrasts, once again comparing never-pregnant perceivers to new-mother perceivers and comparing pregnant perceivers to new-mother perceivers.

At Level 2, we found that new mothers' guesses were on average 0.68 point away from the target's actual response,

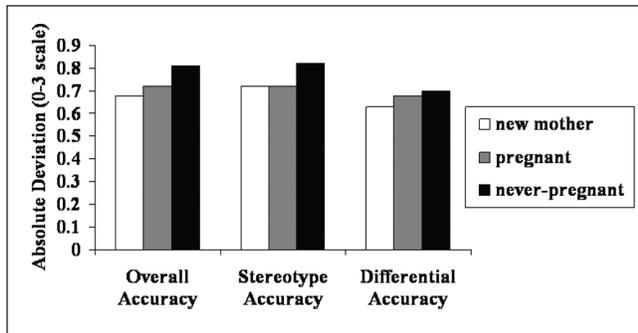


Figure 4. Perceivers' accuracy on the Maternal Attitudes Questionnaire (MAQ)

indicating a significant deviation from accuracy, $t(798) = 6.06, p < .001$. We found that never-pregnant perceivers were significantly less accurate than new mothers, $\beta = 0.13, t(798) = 2.28, p = .02$. To state this result differently, compared to women who had a baby themselves, perceivers who had never been pregnant and never raised a child were on average 0.13 of a point further from the target's actual response than were new-mother perceivers. In contrast, pregnant perceivers' guesses did not differ significantly from new-mother perceivers, $\beta = .04, t(798) = 0.69, p = .49$. Their guesses on the average MAQ item were only 0.04 of a point less accurate than the new mothers' guesses about the targets' actual answers.

We further broke down accuracy on the MAQ into stereotype accuracy and differential accuracy (Cronbach, 1955). Stereotype accuracy was the extent to which a perceiver's guess accurately represented how new mothers generally respond to this questionnaire (i.e., guessing how the prototypical mother would respond). Differential accuracy was a perceiver's ability to guess how the target would respond in ways that deviated from the prototype. To determine how the average mother would respond to the MAQ, for each of the MAQ 14 items, we averaged across responses of all new-mother participants (including both the 20 target mothers and the 20 new-mother perceivers when they were asked how they *themselves* would respond to the MAQ). Stereotype accuracy was then computed as the absolute difference between the perceiver's guess and the average response for that item.

Using the same HLM model, we compared stereotype accuracy across the three perceiver types by looking at the absolute difference between perceivers' guesses on each MAQ item and the mean response on that item. Results were similar to what we found for overall accuracy: New mothers' guesses about targets' MAQ responses were, on average, $\beta = 0.09$ points closer to the stereotype than never-pregnant perceivers', $t(798) = 2.42, p = .02$, whereas pregnant perceivers' perceptions were almost exactly the same as new-mother perceivers', $t(798) = -0.0006, p > .99$ (see middle of Figure 4).

Next, we tested whether stereotype accuracy mediated the relationship between accuracy and perceiver type using the three steps discussed in Kenny, Kashy, and Bolger (1998). Our previously reported results showed that new-mother perceivers had more overall accuracy than never-pregnant perceivers, as well as more stereotype accuracy. The remaining step was to see whether perceiver type continued to predict overall accuracy when stereotype accuracy was added to the model. As such, we repeated the preceding HLM, predicting overall accuracy from perceiver type, controlling for stereotype accuracy. Our results indicated that stereotype accuracy fully mediated the relationship between perceiver type and overall accuracy: After controlling for stereotype accuracy, new-mother perceivers were no longer significantly more accurate than never-pregnant woman, $t(797) = 1.23, p = .22$. This drop from significance to nonsignificance means new mothers did not show greater differential accuracy than either pregnant or never-pregnant perceivers, with differential accuracy represented as the extent to which perceiver type predicted accurate inference of targets' deviations from the stereotype (see right side of Figure 4). As HLM (like regression) holds variables equal to zero to estimate the partial effects of other variables, this same regression can be interpreted as indicating that when stereotype accuracy is held to zero, new mothers were no more (differentially) accurate than other perceiver types.

Because new-mother perceivers' advantage over never-pregnant perceivers on MAQ accuracy appeared to be entirely due to their stereotype accuracy, we were curious just how much similarity there was across new mothers' responses to the MAQ. If there were a great deal of similarity, then new-mother perceivers could achieve accuracy by projecting their own responses to the MAQ onto their guesses for how the targets would respond. Indeed, we found there was a core similarity across how our 40 new mothers (20 targets and 20 perceivers) responded to the MAQ (reliability across MAQ items, treating the new mothers as raters, $\alpha = .98$). What is more, using HLM with targets at Level 1, we found that new-mother perceivers' *own* answers on the MAQ significantly predicted the *target's* answers to the MAQ for the particular target a perceiver viewed, $\beta = .49, t(259) = 10.07, p < .001$. Thus, by simply projecting their own feelings, new-mother perceivers could achieve some accuracy in guessing another mother's general response to motherhood. However, new-mother perceivers were not blindly projecting. When we turned our prior model around to predict new-mother perceivers' guesses from the target's actual scores and the perceivers' own answers to the MAQ, we found both were unique predictors. That is, controlling for the target's actual response, new-mother perceivers' own answers predicted their guesses about the targets (indicating some amount of projection), $\beta = .33, t(258) = 6.92, p < .001$, but beyond this projection, targets' actual responses were also a significant predictor of the guesses, $\beta = .28,$

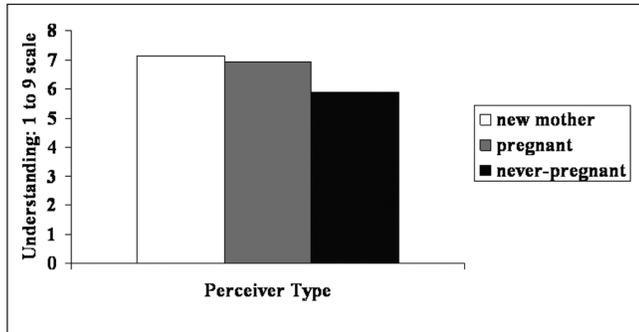


Figure 5. Targets' ratings of perceived understanding

$t(258) = 5.61, p < .001$. Thus, new mothers rely on (and benefit from) projection, but they do not appear to be insensitive to idiosyncratic variations in others' experience.

Perceived Empathy

Thus far, personal experience has had the greatest effect on perceivers' self-reported feelings of empathy, and a very limited effect on empathic accuracy. But what about perceived empathy—that is, do targets of empathy *feel* better understood by perceivers with similar experiences? In our paradigm, targets were not told by the experimenter which type of perceiver they were rating. Thus, they did not know for sure which group a perceiver belonged to unless the perceivers told them their status in the letters (a point we return to in the analysis of the letters). Targets' reports of how well perceivers understood them, based on the letters, and their reports of how well perceivers understood them overall were highly correlated ($r = .87$); therefore, we computed a mean of these two measures and found that targets' ratings of the three groups of perceivers were significantly different, $F(2, 38) = 3.55, p = .04, \eta^2 = .16$. Almost all of the difference was between new-mother and never-pregnant perceivers (see Figure 5); this contrast was significant, $F(1, 19) = 6.51, p = .02$, but the comparison between new-mother and pregnant perceivers was not, $F(1, 19) = .143, p = .71$.

We compared the content of letters written by the three groups to discover what led to greater perceived empathy. Letters did not differ in length among the three groups (mean words per letter = 119), nor did they differ significantly in terms of the number of positive comments made (e.g., "Congratulations to you and your baby"; $M = 3.47$ positive comments per letter), the number of negative comments about the target's experience (e.g., "I'm sure being ill for the first six weeks of your son's life was a difficult time"; $M = 1.10$ negative comments per letter), or the number of suggestions (e.g., "Keep calling on your friends to help"; $M = 1.10$ suggestions per letter).

However, the groups did differ significantly in the extent to which they mentioned being similar to the target, $F(2, 38) = 18.64, p < .001, \eta^2 = .50$ (see Figure 6). Contrasts showed

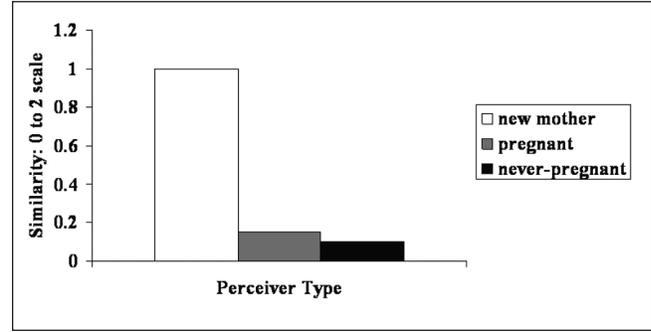


Figure 6. Perceivers' expressed similarity to targets in letters

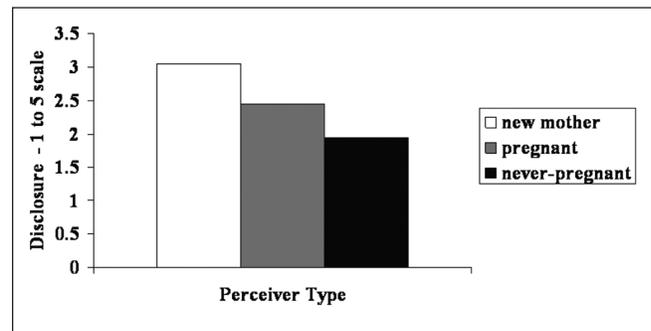


Figure 7. Perceivers' self-disclosure in letters

that new mothers differed from both never-pregnant perceivers, $F(1, 19) = 26.08, p < .001$, and pregnant perceivers, $F(1, 19) = 18.87, p < .001$. The three groups also differed significantly in terms of how much they disclosed about themselves in their letters (e.g., "I have realized at this point in my pregnancy that there are going to be a lot of changes in our lives very soon and it had me a little scared"), $F(2, 38) = 4.03, p = .026, \eta^2 = .18$ (see Figure 7). New-mother perceivers revealed the most about themselves—significantly more than never-pregnant perceivers, $F(1, 19) = 9.23, p = .007$, but not significantly more than pregnant perceivers, $F(1, 19) = 1.93, p = .18$.

To make the exchange between targets and perceivers as ecologically valid as possible, we neither gave any instructions to perceivers about revealing their status nor edited the letters after they were written to hide status information from targets. Although the targets were not told which perceiver had written which letter, about half of the perceivers revealed their perceiver type in their comments in the letters. For new-mother, pregnant, and never-pregnant perceivers, the respective percentages of perceivers revealing their status were 65%, 45%, and 40%. The percentage of perceivers revealing their status did not differ significantly across the three groups of perceivers, nor did the percentage in any of the three groups significantly differ from 50%. However, an exploratory analysis showed that depending on perceiver type, revealing one's status appeared to be differentially related to how understanding one was perceived to be by the

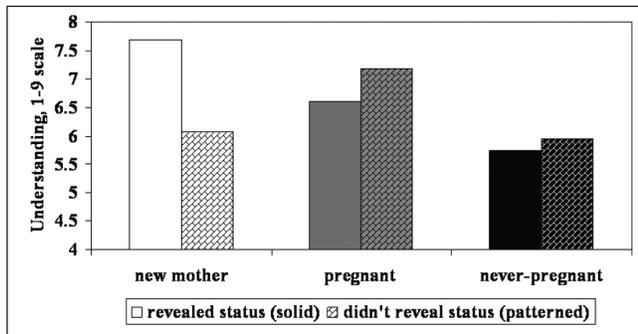


Figure 8. Targets' ratings of perceivers' understanding (broken down by whether perceivers revealed status)

target (see Figure 8). We added three dichotomous “status revealed or not” variables (one for each of the three groups of perceivers) as covariates into our analysis of the target ratings of the perceivers' understanding.⁵ When we added these covariates, the previously found significant within-target main effect of perceiver type disappeared, so that new-mother perceivers were no longer seen as more understanding, $F(2, 32) = .907, p = .41, \eta^2 = .054$. None of the three status variables was a significant covariate, but as anticipated, given the means, the interaction of perceiver type and the status covariate for new-mother perceivers was marginally significant, $F(2, 32) = 2.93, p < .07, \eta^2 = .16$. A post hoc analysis on targets' ratings of perceivers' understanding, comparing new-mother perceivers who revealed their status to those who did not, found that new-mother perceivers who let targets know they were also new mothers were perceived as significantly more understanding than those who did not reveal their status, $t(18) = 2.10, p = .05$. The interactions of perceiver type with the other two status variables (for pregnant and never-pregnant perceivers) were not significant, $ps = .84$ and $.68, \eta^2s = .011$ and $.024$, respectively. In sum, new mothers' advantage in being perceived as more understanding was conferred only when they told the targets that they had had similar experiences.

Discussion

Are the aphorisms right? Does having had a similar experience make us more empathic? The results of this study suggest that having a new baby certainly changes people's (or at least women's) perceptions of each other, but whether it affects *empathy* depends considerably on which measure of empathy is used. Perceivers' *feelings* of empathy (empathic concern and understanding) neatly corresponded to their levels of experience. Consistent with past work (e.g., Barnett et al., 1987; Batson et al., 1996), perceivers who had themselves given birth reported more empathic concern for the new-mother targets and rated themselves as understanding these targets better than women who had not given birth, with the pregnant perceivers falling in between these two groups.

Experience was less valuable when it came to empathic accuracy, which is unique among the three empathy constructs we examined because its measurement relies on matching to a standard rather than relying only on subjective perceptions. New mothers were no more accurate at guessing other new mothers' specific thoughts than were similar women who were not mothers. In terms of accuracy at guessing targets' more *general* feelings about motherhood, women who themselves were new mothers did better than women who had never been pregnant at guessing the targets' responses on the MAQ. However, new mothers did not significantly outscore pregnant women on this measure, and their advantage over never-pregnant women appeared to be due to stereotype accuracy alone—suggesting that personal experience may make one more familiar with that experience generally, but it does not make one more understanding of the specific experiences of others.

Thus, the benefits of experience on accuracy were limited: It did not help new-mother perceivers guess what a target was thinking at a specific point in time, it did not help new-mother perceivers do better than pregnant perceivers (who also had not yet had the experience), and it only helped new-mother perceivers do better than never-pregnant perceivers in guessing a target's attitudes toward motherhood to the extent that the target's attitudes resembled the average new mother. Thus, people who say, “I know just how you feel; I've been there too,” are only partially right, with some important caveats. People with experience may *feel* like they really do understand and care more (in line with our empathic concern results), but actual accuracy does not necessarily follow.

New-mother perceivers may have *felt* more understanding of new-mother targets because the perceivers activated their own familiar experiences when trying to understand the targets. Not only were thoughts about their own experiences reflected in the content of the letters, new mothers also projected from their own answers on the MAQ when they were asked to guess how the targets would respond to the same items. This appears to have been a wise strategy generally, given the considerable similarity among all our new mothers' answers to MAQ items. Thus, new-mother perceivers' superior knowledge of how a prototypical mother would respond to these items may have been informed by their own experiences of new motherhood. However, personal experience is not required to acquire such a prototype (think, e.g., of male obstetricians).

Examining empathy only in the eye of the beholder ignores the important interpersonal nature of empathy, and thus our final set of analyses examined whether similar experience affects *targets'* perceptions of being understood. Targets felt significantly better understood by new-mother perceivers than never-pregnant perceivers, with pregnant perceivers not far behind new-mother perceivers in terms of perceived empathy. We believe pregnant perceivers were able to connect to the targets by writing in their letters about experiences related to

the pregnancy component of new motherhood. Our analysis of the letters shows that the perceivers who were seen as most understanding were not being “nicer” in the letters—they did not say more positive things or fewer negative things than the other perceivers. Furthermore, if anything, their letters were more self-centered. New-mother perceivers in particular wrote more about how they were similar, and they disclosed more about themselves—but probably not *too* much. Past research suggests that the relationship between disclosure and perceived empathy may be curvilinear: Too much can ruin an interaction, but too little may communicate a lack of engagement (Curtis, 1982; Loeb & Curtis, 1984; Pistrang, Solomons, & Barker, 1999).

The twist in the relationship between similar experience and perceived understanding appears to be that the disclosure of *particular* information, not the quantity of disclosure, is the key to perceived empathy. Post hoc analysis regressing target ratings of perceived empathy on amount of disclosure in the letters was not significant, $R^2 = .17$, $F(1, 58) = 1.75$, $p < .20$. What really seemed to matter was when new-mother perceivers mentioned that they, too, were mothers. Notably, across *all* perceiver types, there was a main effect for perceivers revealing their status in their letters: Coders saw them as self-disclosing more, $F(2, 54) = 33.51$, $p < .001$, which is not surprising, given that perceivers would have to disclose information about themselves to reveal their status. Perceivers who revealed their status were also viewed by coders as expressing more similarity to the targets, $F(2, 54) = 13.12$, $p < .002$, suggesting that pregnant or never-pregnant perceivers found ways to reveal their nonmother status that nonetheless established some connection to the targets. However, the interaction effects of revealing one’s status by perceiver type suggested that the boost from revealing one’s status was greatest for new-mother perceivers for disclosure, $F(2, 54) = 2.68$, $p < .08$, and for similarity, $F(2, 54) = 4.42$, $p < .02$. Status did not affect any other of the coders’ ratings of the letters. New-mother perceivers were also the only group for which revelation of status information had any effect on targets’ perceptions. Apparently, both the new-mother targets and our coders were highly attuned to this cue. Simply having had a similar personal experience did *not* result in targets perceiving other new mothers as more empathic, implying that the experience alone did not “show through” in perceivers’ responses: The new-mother perceivers had to explicitly note their shared status to get credit from the targets.

Knowledge of similar experience thus drove *perceptions* of empathy on both sides of an interaction: Perceivers with similar experience felt like they were doing a better job of understanding targets, and targets who knew that perceivers had had similar experiences felt better understood. It is those perceptions that seem to prompt people to say, “I know just how you feel” and “If only someone else had been through this too . . .” Furthermore, we believe it is these same perceptions that prompt our friends’ and colleagues’ surprise when we tell them that experience did not affect accuracy in this

study nor in others (Hodges, 2005). The fact that similar experience affected perceptions of empathy but not accuracy is consistent with both the finding that perceivers are poor judges of their empathic accuracy (Ickes, 1993) and the suggestion that targets may often be unaware of perceivers’ empathic *inaccuracy* (Myers & Hodges, 2009).

Our results have important implications for people in professions that emphasize empathy and understanding (along with anyone else who engages in social interactions—i.e., pretty much everyone!). First, it probably comes as a relief to caregivers and counselors that they do not have to experience everything another person has experienced to accurately understand that person. Instead, accurate understanding can be aided by gaining familiarity with the general (“stereotyped”) nature of a particular experience. Our results also echo previous findings (e.g., Batson et al., 1996) suggesting that people may find themselves less emotionally moved by others whose experiences they have not shared. However, we think the key takeaway point for caregivers is that they will be perceived as more empathic if they explicitly mention having had a similar experience. In fact, preliminary evidence from another study suggests merely creating the belief that another person has had a similar experience leads to higher perceived empathy even if the belief is incorrect (Hodges, 2009).

What can people without personal experience do if they want to be perceived as empathic? Certainly in the context of therapy and probably beyond, we cannot ethically recommend lying about having had similar experiences. Instead, perhaps caregivers without a specific experience could use different but related experiences as a bridge to others’ experience. However, this must be done with caution, as drawing an inappropriate comparison may ironically communicate a lack of understanding: Although having a new puppy might seem related to having a new baby, we guess that even vaguely equating the two experiences to a new mother might backfire and greatly reduce perceived empathy.

Our study has some limitations that must be acknowledged. First, the failure of experience to show effects on accuracy could be seen as a power issue. However, notably, our limited sample size was large enough to show compelling effects for other facets of empathy (e.g., empathic concern and perceived empathy). Furthermore, there was not even a trend toward new mothers doing the best on Ickes’s (1993) accuracy measure.

Second, as described earlier, we wanted to use a real and compelling life experience, which meant not being able to manipulate which women were experienced. It is possible that mothers and mothers-to-be are drawn to maternal roles because they are more empathic than never-pregnant women. However, we suspect our three groups of women were not that different given that many of our never-pregnant women reported that they were planning to become mothers (or were at least thinking about it) and at least some of our new mothers indirectly let us know that they had not intended to become mothers!

In choosing to use new motherhood as the experience, we also limited our sample to females. Although men can be parents, they cannot be mothers, and many experiences in the first months of parenthood are unique for mothers (e.g., recovering from delivery, lactation). We cannot know for sure if the relationships between shared experience and empathy that we found in the current study would apply equally to men, especially given past findings about differences and similarities in the two sexes on various measures of empathy (e.g., Batson et al., 1996; Eisenberg & Lennon, 1983; Ickes, Gesn, & Graham, 2000; Klein & Hodges, 2001; Laurent & Hodges, 2008). By studying new mothers and pregnant women, it is also possible that hormonal changes associated with these states may have affected our results.

Our study purposefully constrained the exchange of information between our targets and perceivers (e.g., targets talked about their experience on videotape; perceivers wrote letters to the targets) so that we could see exactly where experience made a difference. However, it meant that targets and perceivers never freely interacted. Had an interaction between one of our targets and one of our perceivers occurred in “real life,” things might have gone quite differently, including the possibility that they might have chosen to interact more or less, once information about their level of shared experience had been disclosed.

We think our results vividly illustrate and highlight the importance of the multidimensional nature of empathy. All too often, only one strand of empathy is studied in isolation, sometimes with the assumption that any observed effects will apply equally to all of the other strands. The current study was done with an eye toward ecological validity and clearly demonstrates that a variable such as personal experience can have distinctly different effects on the different facets of empathy. Furthermore, empathy variables associated with the perceiver (empathic concern and empathic accuracy) did not necessarily translate into parallel perceptions of empathy on the part of the target.

Acknowledgments

The authors thank Holly Arrow, Stephanie Carpenter, Christina Gamache Martin, Karyn Lewis, and Bertram Malle for comments on an earlier draft of this article; Deidre Davis for coding help; and Juvata Rusch and Birth to Three in Eugene, Oregon, for help in recruiting participants.

Declaration of Conflict of Interests

The authors declared no conflicts of interests with respect to their authorship or the publication of this article.

Funding

The authors declared having received the following financial support for their research and/or authorship of this article: National Science Foundation Grant 9983890 and a University of Oregon Summer Research Award to the first author.

Notes

1. Seventeen participants—5 targets and 12 perceivers—either participated as unpaid volunteers or refused payment.
2. Although we believe it was due to random chance, the never-pregnant group was more ethnically varied than the other two groups of perceivers. To make sure our results were not confounded by this, we repeated our major analyses using just Caucasian perceivers and found the same results.
3. Different undergraduates rated different videos, so we could not compute a reliability coefficient for the whole sample. However, in some cases the same three to five coders rated the same four or so videotapes. When we computed reliability coefficients for these subsamples, they ranged from .65 to .90.
4. We choose to use hierarchical linear modeling because it allowed a much more precise estimate of accuracy than a correlational approach (i.e., examining the correlation between target and perceiver ratings and then testing whether this correlation is stronger for some perceivers than others) and made full use of the variability in targets and perceivers afforded by our “yoked” design. A correlational approach would collapse all Maternal Attitudes Questionnaire items into a single correlation, which “hides” potential differences in variance among targets and perceivers. Nevertheless, we conducted analyses using the correlational approach as well, with similar results, although the much fewer degrees of freedom gave us less power to find significant effects.
5. This strategy was used because the targets’ ratings of the three perceivers’ understanding was a within-subjects variable.

References

- Banks, G., Berenson, B. G., & Carkhuff, R. R. (1967). The effects of counselor race and training upon counseling process with Negro clients in initial interviews. *Journal of Clinical Psychology, 23*, 70-72.
- Barnett, M. A., Tetreault, P. A., & Masbad, I. (1987). Empathy with a rape victim: The role of similarity and experience. *Violence and Victims, 2*, 255-262.
- Batson, C. D., Fultz, J., & Schoenrade, P. A. (1987). Distress and empathy: Two qualitatively distinct vicarious emotions with different motivational consequences. *Journal of Personality, 55*, 19-39.
- Batson, C. D., Sympon, S. C., Hindman, J. L., Decruz, P., Todd, R. M., Weeks, J. L., et al. (1996). “I’ve been there, too”: Effect on empathy of prior experience with a need. *Personality and Social Psychology Bulletin, 22*, 474-482.
- Chung, R. C., & Bemak, F. (2002). Revisiting the California Southeast Asian Mental Health Needs Assessment data: An examination of refugee ethnic and gender differences. *Journal of Counseling and Development, 80*, 111-119.
- Coke, J. S., Batson, C. D., & McDavis, K. (1978). Empathic mediation of helping: A two-stage model. *Journal of Personality and Social Psychology, 36*, 752-766.
- Cronbach, L. J. (1955). Processes affecting scores on understanding of others and assuming “similarity.” *Psychological Bulletin, 52*, 177-193.

- Curtis, J. M. (1982). The effect of therapist self-disclosure on patients' perceptions of empathy, competence and trust in an analogue psychotherapeutic interaction. *Psychotherapy: Theory, Research, and Practice, 19*, 54-62.
- Davis, M. H. (1983). Measuring individual differences in empathy: Evidence for a multidimensional approach. *Journal of Personality and Social Psychology, 44*, 113-126.
- Davis, M. H., Conklin, L., Smith, A., & Luce, C. (1996). Effect of perspective taking on the cognitive representation of persons: A merging of self and other. *Journal of Personality and Social Psychology, 70*, 713-726.
- Duan, C., & Hill, C. E. (1996). The current state of empathy research. *Journal of Counseling Psychology, 43*, 261-274.
- Eisenberg, N., & Lennon, R. (1983). Sex differences in empathy and related capacities. *Psychological Bulletin, 94*, 100-131.
- Fox, J. (2002). *An R and S-PLUS companion to applied regression*. Thousand Oaks, CA: Sage.
- Free, N. K., Green, B. L., Grace, M. C., Chernus, L. A., & Whitman, R. M. (1985). Empathy and outcome in brief focal dynamic therapy. *American Journal of Psychiatry, 142*, 917-921.
- Grantham, R. J. (1973). Effects of counselor sex, race, and language style on Black students in initial interviews. *Journal of Counseling Psychology, 20*, 553-559.
- Haley, T. J., & Dowd, E. T. (1988). Responses of deaf adolescents to differences in counselor method of communication and disability status. *Journal of Counseling Psychology, 35*, 258-262.
- Halpern, T. (1977). Degree of client disclosure as a function of past disclosure, counselor disclosure and counselor facilitativeness. *Journal of Counseling Psychology, 24*, 41-47.
- Hodges, S. D. (2005). Is how much you understand me in your head or mine? In B. F. Malle & S. D. Hodges (Eds.), *Other minds: How humans bridge the divide between self and others* (pp. 298-309). New York: Guilford.
- Hodges, S. D. (2009, February). Components of empathic understanding: The experience of being understood. In J. Zaki (Chair), *Sharing and understanding the emotions of others: Relationships between different facets of empathy*. Symposium conducted at the 2009 meeting of the Society of Personality and Social Psychology, Tampa, FL.
- Hodges, S. D., & Biswas-Diener, R. (2007). Balancing the empathy expense account: Strategies for regulating empathic response. In T. F. D. Farrow & P. W. R. Woodruff (Eds.), *Empathy in mental illness and health* (pp. 389-407). Cambridge, UK: Cambridge University Press.
- Hodges, S. D., Johnsen, A. T., & Scott, N. S. (2002). You're like me, no matter what you say. *Psychologica Belgica, 42*, 107-112.
- Ickes, W. (1993). Empathic accuracy. *Journal of Personality, 61*, 587-610.
- Ickes, W., Gesn, P. R., & Graham, T., (2000). Gender differences in empathic accuracy: Differential ability or differential motivation? *Personal Relationships, 7*, 95-109.
- Kenny, D. A., Kashy, D. A., & Bolger, N. (1998). Data analysis in social psychology. In D. T. Gilbert, S. T. Fiske, & L. Gardner (Eds.), *The handbook of social psychology* (pp. 233-265). New York: McGraw-Hill.
- Kirk, W. G., Best, J. B., & Irwin, P. (1986). The perception of empathy in alcoholism counselors. *Journal of Studies on Alcohol, 47*, 82-84.
- Klein, K. J. K., & Hodges, S. D. (2001). Gender differences, motivation and empathic accuracy: When it pays to understand. *Personality and Social Psychology Bulletin, 27*, 720-730.
- Krebs, D. (1975). Empathy and altruism. *Journal of Personality and Social Psychology, 32*, 1134-1146.
- Krueger, J., & Clement, R. W. (1994). The truly false consensus effect: An ineradicable and egocentric bias in social perception. *Journal of Personality and Social Psychology, 67*, 596-610.
- Laurent, S. M., & Hodges, S. D. (2008). Gender and empathic accuracy: The role of communion in reading minds. *Sex Roles, 60*, 387-398.
- Lawson, G. (1982). Relation of counselor traits to evaluation of the counseling relationship by alcoholics. *Journal of Studies on Alcohol, 43*, 834-839.
- Lehman, D. R., Ellard, J. H., & Wortman, C. B. (1986). Social support for the bereaved: Recipients' and providers' perspectives on what is helpful. *Journal of Consulting and Clinical Psychology, 54*, 438-446.
- Loeb, R. G., & Curtis, J. M. (1984). Effect of counselors' self-references on subjects' first impressions in an experimental psychological interview. *Psychological Reports, 55*, 803-810.
- Marks, G., & Miller, N. (1987). Ten years of research on the false-consensus effect: An empirical and theoretical review. *Psychological Bulletin, 102*, 72-90.
- Myers, M. W., & Hodges, S. D. (2009). Making it up and making do: Simulation, imagination and empathic accuracy. In K. Markman, W. Klein, & J. Suhr (Eds.), *The handbook of imagination and mental simulation* (pp. 281-294). New York: Psychology Press.
- Pistrang, N., Solomons, W., & Barker, C. (1999). Peer support for women with breast cancer: The role of empathy and self-disclosure. *Journal of Community and Applied Social Psychology, 9*, 217-229.
- Robiner, W. R., & Storandt, M. (1983). Client perceptions of the therapeutic relationship as a function of client and counselor age. *Journal of Counseling Psychology, 30*, 96-99.
- Simpson, J. A., Ickes, W., & Blackstone, T. (1995). When the head protects the heart: Empathic accuracy in dating relationships. *Journal of Personality and Social Psychology, 69*, 629-641.
- Stinson, L., & Ickes, W. (1992). Empathic accuracy in the interactions of male friends versus male strangers. *Journal of Personality and Social Psychology, 62*, 787-797.
- Stotland, E. (1969). Exploratory investigations of empathy. In L. Berkowitz (Ed.), *Advances in experimental social psychology* (Vol. 4, pp. 271-314). New York: Academic Press.
- Warner, R., Appleby, L., Whitton, A., & Faragher, B. (1997). Attitudes toward motherhood in postnatal depression: Development of the Maternal Attitudes Questionnaire. *Journal of Psychosomatic Research, 43*, 351-358.