Batson, C. Daniel; And Others
Distress and Empathy: Two Qualitatively Distinct Vicarious Emotions with Different Motivational Consequences.
Kansas Univ., Lawrence. General Research Fund.
Aug 84
Information Analyses (070) -- Speeches/Conference Papers (150)
MFO1/PC02 Plus Postage.
*Altruism; *Emotional Response; *Empathy; Helping Relationship; Individual Needs; *Motivation; Prosocial Behavior; Social Attitudes; *Social Cognition
*Distress

The construct of empathy may be located conceptually at several different points in a network of social cognition and vicarious emotion. This paper discusses one specific form of emotional empathy, empathy in response to perceiving another person in need. First, evidence is reviewed suggesting that there are at least two distinct types of congruent vicarious emotional responses to perceiving another in need: feelings of personal distress (e.g., alarmed, upset, worried, disturbed, distressed, troubled, etc.), and feelings of empathy (e.g., sympathetic, moved, compassionate, tender, warm, softhearted, etc.). Next, evidence is reviewed suggesting that these two vicarious emotions have distinct motivational consequences. Whereas personal distress seems to evoke egoistic motivation to reduce one's own aversive arousal, as a traditional Hullian tension-reduction model would propose, empathy does not. Motivation evoked by empathy appears to be altruistic. The ultimate goal seems to be reduction of the other's need, not reduction of one's own aversive arousal. The emotional and motivational differentiation suggested by the empirical evidence seems more congruent with the analysis of the nature of emotion and motivation proposed long ago by McDougall than that proposed by Hull. (Author)
Distress and Empathy: Two Qualitatively Distinct Vicarious Emotions with Different Motivational Consequences

C. Daniel Batson, Jim Fultz, and Patricia A. Schoenrade
University of Kansas

Paper prepared for symposium on "The Construct and Assessment of Empathy" at the American Psychological Association Convention, Toronto, Canada, August, 1984. Preparation of this paper was supported in part by University of Kansas General Research Fund Grant #3375-X0-0038.
Abstract

The construct of empathy may be located conceptually at several different points in a network of social cognition and vicarious emotion. We shall discuss one specific form of emotional empathy, empathy in response to perceiving another person in need. First, evidence is reviewed suggesting that there are at least two distinct types of congruent vicarious emotional responses to perceiving another in need: feelings of personal distress (e.g., alarmed, upset, worried, disturbed, distressed, troubled, etc.) and feelings of empathy (e.g., sympathetic, moved, compassionate, tender, warm, softhearted, etc.). Next, evidence is reviewed suggesting that these two vicarious emotions have distinct motivational consequences. Whereas personal distress seems to evoke egoistic motivation to reduce one's own aversive arousal, as a traditional Hullian tension-reduction model would propose, empathy does not. Motivation evoked by empathy appears to be altruistic; the ultimate goal seems to be reduction of the other's need, not reduction of one's own aversive arousal. The emotional and motivational differentiation suggested by the empirical evidence seems more congruent with the analysis of the nature of emotion and motivation proposed long ago by McDougall than that proposed by Hull.
Distress and Empathy: Two Qualitatively Distinct Vicarious Emotions with Different Motivational Consequences

We psychologists are noted for using our terms loosely and with multiple definitions, but in our use of empathy we seem to have outdone ourselves. It is not possible here to review all the ways empathy has been defined; yet, in the hope of keeping matters from getting further out of hand, let us begin by suggesting some of the major ways, and specifying the definition that we shall use.

Defining Empathy

Apparently coined by Titchener in 1909 to translate the German "Einfühlung," empathy was first used by phenomenologists in a perceptual context to refer to the process of intuiting into an object or event to "see" it from the inside (Wispe, 1968). By the 1950's, empathy had taken on a more cognitive meaning in clinical discussions; it referred to accurately and dispassionately understanding another person's (i.e., the client's) point of view on his or her situation (Dymond, 1949; Hogan, 1969). This usage was often linked with the developmental concepts of role-taking and perspective-taking (Borke, 1971; Krebs & Russell, 1981; Underwood & Moore, 1982).

Since about 1960, empathy has been given a more emotional meaning, especially when used by developmental and social psychologists. Understanding another's point of view--perspective taking--has been considered a prerequisite to empathy, and empathy has been variously defined as (a) feeling any vicarious emotion, (b) feeling the same emotion that another person is feeling, or (c) feeling a vicarious
emotion that is congruent with but not identical to the emotion of the other (Batson & Coke, 1981; Stotland, 1969; Wispe, 1968). Since the late 1970's empathy in this emotional sense has been used even more narrowly to refer to a specific type of congruent vicarious emotion, those feelings that are more other-directed than self-directed (Batson, Duncan, Ackerman, Buckley, & Birch, 1981; Batson, O'Quin, Fultz, Vanderplas, & Isen, 1983; Coke, Batson, & McDavis, 1978; Toi & Batson, 1982).

We shall use empathy in this last, narrow emotional sense. Moreover, we shall restrict our discussion to vicarious emotions in response to perceiving another person in need. The vicarious emotion of empathy produced by witnessing another person's suffering would involve feeling sympathetic, compassionate, softhearted, tender, and the like. The specific label for this other-directed congruent vicarious emotional response is, of course, not crucial. We are calling it empathy, but it has also been called sympathy (Heider, 1958; Smith, 1759; Wispe, 1968), compassion (Hume, 1740), and "the tender emotion" (McDougall, 1908).

We wish to propose a two-part thesis: First, we propose that the congruent vicarious emotion we are calling empathy is qualitatively distinct from the more self-oriented congruent vicarious emotion of personal distress. Personal distress involves feeling alarmed, upset, disturbed, distressed, perturbed, and the like. Second, we propose that these two qualitatively distinct vicarious emotions evoke different types of prosocial motivation: Personal distress evokes egoistic
motivation to have one's own vicarious emotional arousal (distress) reduced, while empathy evokes altruistic motivation to have the other's need reduced.

Two Views of the Vicarious Emotion-Prosocial Motivation Link

Admittedly, our two-part thesis flies in the face of the traditional view of the role of emotion in motivating behavior. The traditional view of the emotion-motivation link emerged out of the combined impact of (a) studies of infrahuman motivation, (b) studies of emotion employing physiological measures, (c) homeostatic principles, and (d) Cannon's critique of the James-Lange theory of emotion; it was clearly expressed in the drive-reduction model of Clark Hull (1943, 1952). When generalized to apply to the motivation to help evoked by arousal of vicarious emotions, this traditional tension-reduction view may be outlined as in Figure 1.

---

Insert Figure 1 about here
---

According to this traditional view, the vicarious emotions that we have labelled personal distress and empathy are not qualitatively distinct, at least not in any psychologically significant way. Instead, these emotions combine to produce an overall level of vicarious emotional arousal. This arousal is experienced as aversive, and it leads to motivation directed toward the goal of reducing the aversive arousal (i.e., tension reduction). One behavioral means of reaching this goal is to help, for by eliminating the other's distress one
eliminates the stimulus causing one's own aversive vicarious arousal. In his view the motivation to help evoked by empathy is fundamentally egoistic—the ultimate goal is to reduce one's own aversive arousal; reducing the distress of the person in need is simply one means of reaching this ultimate goal.

Perhaps the best known proponents of this traditional tension-reduction view of the vicarious emotion-prosocial motivation link are Piliavin and Piliavin (1973; see also Piliavin, Dovidio, Gaertner, & Clark, 1981) and Hoffman, at least in his recent writings (1981, 1982). The Piliavins speak of an aversive vicarious emotion of "empathic pain"; Hoffman speaks of "empathic distress," and both assume that the empathically aroused individual helps in order to reduce this vicarious emotion. Predictably, both also minimize the difference between egoistic and altruistic motivation for helping. Hoffman (1981) puts the traditional view in a nutshell: "Empathy may be uniquely well suited for bridging the gap between egoism and altruism, since it has the property of transforming another person's misfortune into one's own feeling of distress" (p. 133).

This traditional tension-reduction view is not the only view of the emotion-motivation link. There is another, less parsimonious view, which we shall call the archaic view. This view, largely derived from armchair reflection on an assortment of examples of real and imagined human and animal behavior—and largely ignored for the past half century—is perhaps most clearly expressed in the writings of William McDougall (1908). In the archaic view it is assumed that there are
qualitative distinctions between different emotions. Moreover, it is assumed that different emotions lead to the evocation of different goals and, hence, to different types of motivation. Emotions do not all just tumble together into one seething cauldron of tension or arousal, producing a generalized drive state directing all behavior toward the single goal of tension reduction. Of course, McDougall believed that the different emotions and motives defined different instincts, but one need not adopt McDougall’s instinct theory in order to adopt his view that there are qualitatively distinct emotions with different motivational consequences. When generalized to apply to motivation to help evoked by the arousal of vicarious emotions, this archaic view may be outlined as in Figure 2.

---

McDougall (1908) himself offered an explanation for prosocial behavior based on his view of the link between emotion and motivation. He suggested that there were two distinct vicarious emotions—sympathetic pain and the tender emotion. These closely parallel our personal distress and empathy, respectively. Moreover, he suggested that the former leads to egoistic and the latter to altruistic motivation, and that the gap between these two types of motivation cannot be bridged. McDougall’s argument is nicely summarized in his delightfully fanciful interpretation of the parable of the Good Samaritan:
No doubt the spectacle of the poor man who fell among thieves was just as distressing to the priest and the Levite, who passed by on the other side, as to the good Samaritan who tenderly cared for him. They may well have been exquisitely sensitive souls, who would have fainted away if they had been compelled to gaze upon his wounds. The great difference between them and the Samaritan was that in him the tender emotion and its impulse were evoked, and that this impulse overcame, or prevented, the aversion naturally induced by the painful and, perhaps, disgusting spectacle (1908, p. 65).

Obviously, the two-part thesis that we stated earlier is a throwback to McDougall's archaic view of the vicarious emotion-prosocial motivation link. But we are not proposing that we simply roll back the clock and take McDougall's armchair reflections at face value. To bring his view up to date, we need empirical evidence. Accordingly, we wish now briefly to summarize some evidence that we believe favors the arachaic view over the traditional tension-reduction view. Evidence that Distress and Empathy are Distinct Vicarious Emotions

Concerning the first part of our thesis, three strategies for producing relevant evidence may be suggested. First, one could factor analyze individuals' self-reported emotional responses to witnessing another's distress to see if adjectives reflecting personal distress load on a different factor from adjectives reflecting empathy. We have done this in a series of studies at Kansas, now six in number. Subjects
in each study were asked to report on a 7-point scale (1 = not at all; 7 = extremely) how strongly they were feeling each emotion described in a list of emotion adjectives. The list included eight adjectives assumed to reflect the vicarious emotion of distress--alarmed, grieved, upset, worried, disturbed, perturbed, distressed and troubled--and six adjectives assumed to reflect empathy--sympathetic, moved, compassionate, tender, warm, and softhearted. We reasoned that if distress and empathy are independent vicarious emotions, then subjects' ratings of the adjectives in these two sets should load on separate factors in a factor analysis. Alternatively, if these emotions combine to form a single vicarious emotion of "empathic distress," then responses to all 14 adjectives should load on a single factor. To provide a clear comparison of these alternatives, we used an orthogonal rotation, which insures that each new factor is entirely unrelated to all previous factors.

Before turning to the results from the factor analyses, it should be noted that the correlations between responses to the eight distress adjectives (averaged) and the six empathy adjectives (averaged) were positive in each of the six studies (the \( r \)'s ranged from .44 to .75; all \( p < .001 \)). These correlations may seem to suggest that adjectives of both types reflect a single vicarious emotion. But although the correlations are certainly consistent with this possibility, they do not provide clear support for it. There are at least three other reasons to expect subjects' reports of these emotions to be positively correlated. First, because both distress and empathy are emotions, they
should be similarly affected by individual differences in general emotionality or in readiness to report emotions. Second, because both distress and empathy are vicarious emotions evoked by perceiving a person in need, individual differences in perceptions of the magnitude of the need should have parallel effects on both. Third, in each of the six studies in this series, emotions were measured by self-reports on unidirectional adjective rating scales, with adjectives reflecting distress and empathy intermixed. Using this form of measurement, response-set biases could easily produce a positive correlation between reports of the two emotions.

Factor analysis can control for these potential confounds in the correlations, because factor analysis seeks systematic, independent patterns within as well as across individuals' responses. Varimax-rotated principal component analyses were performed for each of the six studies on subjects' responses to the 14 emotion adjectives. Results in each study revealed that a two-factor solution was more appropriate than a one-factor solution. The two-factor solution included all eigenvalues above 1.0, and only eigenvalues above 1.0, in five of the six studies, and all eigenvalues above 1.3 in the sixth (Batson, Cowles, & Coke, 1979). In addition, the two-factor solution included all factors accounting for at least 10 percent of the total variance in all six studies; the one-factor solution failed to meet this criterion in any study. Across the six studies, the variance accounted for by the two-factor solution ranged from 65 to 73 percent of the total. Factor
loadings for each of the 14 emotion adjectives in the two factor solution are reported in Table 1.

As is apparent from Table 1, the loadings reveal a factor structure that is highly consistent across studies; in each, the eight distress adjectives tend to load on one factor and the six empathy adjectives tend to load on a second, orthogonal factor. The first factor, which we have called the distress factor, received loadings greater than .60 from "alarmed," "upset," disturbed," and "distressed" in all six studies, from "worried" and "perturbed" in five of the six, and from "grieved" and "troubled" in four of the six studies. The second factor, which we have called the empathy factor, received loadings greater than .60 from "moved," "compassionate," "warm," and "softhearted" in all six studies and from "sympathetic" and "tender" in four of five studies. (These last two adjectives were not used by Coke et al., 1978.)

The consistency of the factor structure across the six studies, which employed a variety of need situations, suggests that the two-factor solution is robust. The robustness of the two-factor solution is further supported by the findings of other researchers at another institution. Archer, Diaz-Loving, Gollwitzer, Davis, and Foushee (1981) and Davis (1983) have reported similar factor structures, with distress adjectives loading on one factor and empathy adjectives loading on another.
This robust two-factor structure seems inconsistent with the traditional view that distress and empathy are components of a single vicarious emotion; it is entirely consistent with the archaic view that they are qualitatively distinct. Still, the factor analysis evidence cannot be considered conclusive because some other discriminating feature of the two sets of adjectives—for example, social desirability or positivity—might be producing the two factors. Corroborating evidence using other research strategies is needed.

A second strategy for providing evidence of a qualitative distinction between distress and empathy would be to show that each of the emotions can be experimentally manipulated independent of the other. If the two emotions are not qualitatively distinct, then it should not be possible to affect the experience of one without also affecting the experience of the other.

Employing this logic, Batson et al. (1981, Experiment 2) attempted to manipulate distress and empathy independently, using a misattribution technique. They had participants watch over a closed-circuit television while a young woman, Elaine, received electric shocks. Her reactions made it clear that she found the shocks quite uncomfortable. To manipulate participants' emotional response to watching Elaine, they were given a drug capsule (actually a placebo) in the context of another study. Some were told that as a side effect, the drug would create a feeling of "warmth and sensitivity"; others, that it would create a feeling of "uneasiness and discomfort." Batson et al. reasoned that if watching Elaine suffer elicited feelings of both personal distress and
empathy, and if these feelings were qualitatively distinct, then participants induced to misattribute their feelings of warmth and sensitivity (empathic feelings) would perceive their emotional reaction to Elaine to be predominantly personal distress. In contrast, participants induced to misattribute their feelings of uneasiness and discomfort (distress feelings) would perceive their emotional reaction to Elaine to be predominantly empathy.

Participants' responses to two items on a postexperimental questionnaire were quite consistent with this reasoning. The first item asked subjects how much uneasiness they experienced as a result of observing Elaine; the second, how much warmth and sensitivity. Participants who were told that the placebo would make them feel warm and sensitive reported experiencing a relative predominance of uneasiness as a result of watching Elaine; those told that the placebo would make them feel uneasy reported a relative predominance of warmth and sensitivity. This successful independent manipulation of perceived distress and empathy was entirely consistent with the suggestion that these emotional states are qualitatively distinct.

A third strategy for demonstrating that the two emotions are qualitatively distinct would be to look for evidence of the motivational differences claimed to result from the two emotions. If, as asserted by the second part of our thesis, the two emotions evoke recognizably different types of motivation, then they must be distinct, as asserted by the first part of our thesis. Ultimately, evidence using this third strategy is most crucial. For, even if we were to find evidence that
the emotions were experience as distinct, but we found no evidence that
the difference had any impact on motivation or behavior, the distinction
would be of limited interest. Is there, then, any evidence for the
second part of our thesis, that distress leads to egoistic and empathy
to altruistic motivation to help?

Evidence that Distress Leads to Egoistic
and Empathy Leads to Altruistic Motivation to Help

Well, what are the possible behavioral differences that would
enable one to determine whether empathy leads to altruistic
motivation, as suggested by the archaic view, or whether empathy leads
to egoistic motivation to reduce one's own aversive arousal, as
suggested by the traditional view? Batson et al. (1981) have proposed
that it should be possible to tease apart these two alternative views
of the nature of the motivation evoked by empathy by varying the ease
of escape without helping. If the motivation evoked by empathy is
egoistic, the goal being to reduce one's own vicarious empathic emotion,
then either helping or escaping can enable one to reach this goal. So
if it is moderately costly to help, helping should occur more often when
escape is difficult than when it is easy. But if the motivation evoked
by empathy is altruistic, the goal being to reduce the other's need,
then helping can enable one to reach this goal, but escaping cannot. So
helping should occur as often when escape is easy as when it is
difficult.
To date, there have been seven studies that provide evidence concerning the effect of empathy on helping when escape is easy. The results of these studies are summarized in Table 2.

In the first two studies in Table 2, ease of escape was not manipulated; the need situation was always presented so that escape was easy. In the first study (Coke et al., 1978, Experiment 2), participants learned indirectly of a graduate student's need for research participants by listening to a (bogus) taped radio broadcast; then they were given a written appeal for help. All that was necessary to escape continued exposure to the need situation was to lay the appeal aside and forget it. Yet, greater self-reported empathy was associated with high rates of helping (see Column 1 of Table 2); moreover, greater self-reported personal distress was not. This was precisely the pattern of results that would be expected if increased empathy led to altruistic motivation and increased distress led to egoistic motivation.

Results of the second study in Table 2 (Batson et al., 1979) provided additional evidence that greater self-reported empathy leads to high rates of helping when escape is easy, but greater personal distress does not. The procedure of this study was quite similar to that of the previous one, but a different need situation was employed. In this study, the taped radio broadcast presented the consequences of a rather gory automobile accident. Escape without helping was made easy
by the same technique used by Coke et al. Once again, greater self-reported empathy was associated with high helping, but greater self-reported personal distress was not.

In these first two studies, it was simply assumed that escape was easy enough so that egoistic motivation would not lead to increased helping, whereas altruistic motivation would. A far stronger test of whether empathy leads to altruistic motivation would be provided by a design in which both the degree of empathic emotion and the ease of escape were varied. The last five studies in Table 2 employed such a design. In each, ease of escape was manipulated by leading some participants to believe that if they did not help they would never again see the person in need; other participants were led to believe that if they did not help they would continue to see the suffering victim.

What pattern of helping across such a design would be expected if empathy evokes altruistic motivation? Presumably, if empathy is kept low, then distress will be the predominant vicarious emotion produced by witnessing the other's suffering. This distress should produce egoistic motivation to reduce one's own aversive arousal. As a result, ease of escape should affect the rate of helping when empathy is low. But when empathy is high, empathy should be the predominant vicarious emotion, evoking altruistic motivation. As a result, ease of escape should have no effect when empathy is high. Across the four cells of an empathy (low versus high) by escape (easy versus difficult) 2 x 2 design, we would expect a 1-versus-3 pattern of helping. The rate of helping should be relatively low in the low empathy-easy escape cell and
But what if, instead, empathy evokes egoistic motivation to reduce one's own aversive arousal? Then we would expect an escape manipulation to have the same effect on helping among high empathy subjects as among low; there should be a main effect for escape in each empathy condition. There might also be a main effect for empathy, high empathy leading to more helping than low, because the higher level of vicarious emotion should lead to stronger motivation to reduce that emotion. So, if empathy evokes egoistic tension-reduction motivation, we would expect to observe one or two main effects; if, however, empathy evokes altruistic motivation, we would expect the 1-versus-3 pattern.

Results of each of the last five studies in Table 2 clearly conform to the 1-versus-3 pattern. In each study, the planned comparison testing this pattern accounted for all reliable between-cell variance. Moreover, individual between-cell comparisons in each study revealed that, as predicted, the low empathy-easy escape cell differed significantly, $p < .05$, from the low empathy-difficult escape cell (see subscripts in Table 2), but the high empathy-easy escape and high empathy-difficult escape cells did not differ. These results do not support the traditional tension-reduction view that empathy evokes aversive arousal; instead, they support the archaic view that distress evokes egoistic and empathy evokes altruistic motivation to help.

The consistency of the 1-versus-3 pattern across the seven studies summarized in Table 2 suggests that the pattern is fairly robust, because the studies differed in a number of ways. Low and high empathy...
conditions were created by four different techniques: subjects' self-reports of their vicarious emotion (Coke et al., 1978, Experiment 2; Batson et al., 1979; Toi & Batson, 1982; Batson, et al., 1983, Studies 1 and 2), a perspective-taking instruction manipulation (Toi & Batson, 1982), a similarity manipulation (Batson et al., 1981, Experiment 1), and an emotion-specific misattribution manipulation (Batson et al., 1981, Experiment 2). Ease of escape was manipulated in two ways: Subjects believed that they either would or would not continue to watch another introductory psychology student take electric shocks (Batson et al., 1981, Experiments 1 and 2; Batson et al., 1983, Studies 1 and 2), or subjects believed that they either would or would not see the needy person next week in their introductory psychology class (Toi & Batson, 1982). Finally, a variety of need situations was used in these studies. Across these different need situations and techniques for varying the levels of empathy and ease of escape, helping responses consistently conformed to the 1-versus-3 pattern that would be predicted if distress leads to egoistic and empathy to altruistic motivation to help.

The suggestion that empathy evokes altruistic motivation to help has not, however, gone unchallenged. Archer et al. (1981), Cialdini (personal communication, May, 1982), and Meindl and Lerner (1983) have all proposed alternative explanations for part or all of the evidence summarized in Table 2. In essence, the alternative explanations suggest that although empathy may not evoke motivation to reduce one's empathic distress as has been assumed by the traditional tension-reduction view, the motivation to help associated with empathy may still be egoistic.
The empathically aroused individual may help in order to avoid anticipated punishments or to gain anticipated rewards that arise specifically when a person is feeling empathy. Additional research is underway to test these alternative explanations of the research summarized in Table 2.

Implications

Taken together, the factor analyses of self-reported emotional response, the independent experimental manipulation of personal distress and empathy, and the effects of distress and empathy on helping when escape is easy clearly contradict the traditional tension-reduction view of the relationship between vicarious emotion and prosocial motivation. Instead, they provide consistent evidence for the archaic view that distress and empathy are distinct vicarious emotions with different motivational consequences.

Given that this is where matters now stand, let us briefly mention four implications, two directed primarily to those of us who are social psychologists and two to those who are developmental psychologists. Most obviously for social psychologists who have been conducting research on the motivational consequences of vicarious emotions, especially empathy, the implication is that our task is far from finished. We have made some progress by ruling out the traditional tension-reduction explanation of the empathy-helping relationship, but as noted above, we have not yet clearly ruled out other egoistic explanations. So we need to get on down the road.
A second implication is addressed to social psychologists interested in the more general issues of the nature of emotion and the relationship between emotion and motivation. If there are important qualitative distinctions between vicarious emotions and their associated motivations, then it seems likely that the same may be true for other emotions as well. There may be less plasticity and more qualitative distinctions among emotions than is implied by the physiological arousal-cognitive label formulation (Schachter, 1964) so popular in recent social psychology. In retrospect, we may have been led into a limited view of emotion by our relative emphases on (a) the association between cognition and emotion and (b) emotion as a dependent variable, to the relative exclusion of (c) the association between emotion and motivation and (d) emotion as a mediating variable. To assess potentially important qualitative distinctions among emotions, we may need to change our research perspective. It may be necessary to look at emotions in the context of goal-directed behavior rather than simply as the end-point of an inference process about one's current internal state.

Finally, let us mention two possible implications for developmental psychologists. First, a methodological implication: If there are qualitative distinctions among vicarious emotions and associated motives in adults, then there may be similar distinctions in children. If so, developmental researchers, whether studying children in the laboratory or in the field, need to think about the type of vicarious emotion they are manipulating and/or measuring, recognizing that different types of
vicarious emotion may have different motivational and behavioral consequences. If this were done, perhaps some of the apparent inconsistency in the developmental research on the empathy-helping relationship in children could be rendered comprehensible.

The second developmental implication involves a more speculative question: When in the life span do the two vicarious emotions of distress and empathy emerge, and how is their development related—if it is? Perhaps distress reactions are innate and empathy emerges from distress through the development of cognitive perspective taking and emotional socialization, as Hoffman (1975, 1976) has at times suggested. Perhaps, but there are other possibilities that deserve consideration as well. And we are now past the stage of formulating hypotheses; we need to start testing them.
References


Distress and empathy


Footnotes

1In some of his earlier writings, Hoffman (1975, 1976) made a distinction between empathic distress and sympathetic distress that parallels our distinction between personal distress and empathy. But in his recent writings, Hoffman tends to minimize this distinction, using the term empathic distress "generically" to refer to both empathic and sympathetic distress and ignoring any motivational difference.
## Distress and Empathy

### Table 1

Varimax-Rotated Principal-Components Factor Structure of Self-Reported Emotional Responses to Witnessing Another in Need (Six Studies)

| Study | Factor loadings (least squares factor analysis) | D | E | D | E | D | E | D | E | D | E |
|-------|-----------------------------------------------|---|---|---|---|---|---|---|---|---|---|---|
|       |                                               |   |   |   |   |   |   |   |   |   |   |   |
| **Distress adjectives** |                                               |   |   |   |   |   |   |   |   |   |   |   |
| Alarmed | %75*.01  .72*.49  .63*.15  .72*.3*  .77*.11  .80*.19 |   |   |   |   |   |   |   |   |   |   |   |
| Grieved | .51    .49    .65*.48  .55    .58    .70*.33  .68*.42  .72*.30 |   |   |   |   |   |   |   |   |   |   |   |
| Upset   | .84*.39  .82*.32  .74*.38  .80*.38  .87*.17  .89*.28 |   |   |   |   |   |   |   |   |   |   |   |
| Worried | .40    .60*  .87*.18  .67*.35  .72*.34  .78*.18  .81*.39 |   |   |   |   |   |   |   |   |   |   |   |
| Disturbed | .83*.35  .82*.38  .76*.20  .76*    .89*.18  .90*.24 |   |   |   |   |   |   |   |   |   |   |   |
| Troubled | .88*.23  .58    .54    .80*.22  .75*.33  .59    .39    .87*.32 |   |   |   |   |   |   |   |   |   |   |   |
| **Empathy adjectives** |                                               |   |   |   |   |   |   |   |   |   |   |   |
| Sympathetic | --     --     .58    .53    .23    .74*    .29    .69*    .04    .84*    .20    .82* |   |   |   |   |   |   |   |   |   |   |   |
| Moved    | .31    .75*    .37    .78*    .41    .78*    .42    .74*    .31    .67*    .40    .72* |   |   |   |   |   |   |   |   |   |   |   |
| Compassionate | .25    .80*    .09    .82*    .40    .73*    .24    .80*    .14    .86*    .17    .90* |   |   |   |   |   |   |   |   |   |   |   |
| Tender   | --     --     .66*    .32    .18    .86*    .28    .78*    .31    .78*    .36    .74* |   |   |   |   |   |   |   |   |   |   |   |
| Warm     | .05    .82*    .23    .71*    -.03    .80*    .19    .80*    .20    .68*    .15    .66* |   |   |   |   |   |   |   |   |   |   |   |
| Softhearted | .12    .85*    .14    .73*    .11    .80*    .17    .86*    .05    .83*    .29    .86* |   |   |   |   |   |   |   |   |   |   |   |

*Denotes loading above .60.

D = Distress factor (Factor 1); E = Empathy factor (Factor 2).
Table 1 (Continued)

Studies are as follows:

1. Coke et al. (1978, Experiment 2) -- N=33; females only
2. Batson et al. (1979) -- N=30; females only
3. Coke (1980) -- N=63; females only
4. Toi and Batson (1982) -- N=78; females only
5. Fultz (1982) -- N=61; 26 males, 35 females
6. Batson et al. (1983) -- N=88; 39 males, 49 females
Table 2

Proportions of Low and High Empathy Subjects
Who Offered Help when Escape was Easy or Difficult
(Seven Studies)

<table>
<thead>
<tr>
<th>Study</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Low empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy escape</td>
<td>.38\textsubscript{a}</td>
<td>.00\textsubscript{a}</td>
<td>.18\textsubscript{a}</td>
<td>.33\textsubscript{a}</td>
<td>.39\textsubscript{a}</td>
<td>.40\textsubscript{a}</td>
<td>.25\textsubscript{a}</td>
</tr>
<tr>
<td>(16)</td>
<td>(15)</td>
<td>(11)</td>
<td>(12)</td>
<td>(23)</td>
<td>(10)</td>
<td>(8)</td>
<td></td>
</tr>
<tr>
<td>Difficult escape</td>
<td>--</td>
<td>--</td>
<td>.64\textsubscript{b}</td>
<td>.75\textsubscript{b}</td>
<td>.81\textsubscript{b}</td>
<td>.89\textsubscript{b}</td>
<td>.89\textsubscript{b}</td>
</tr>
<tr>
<td>(11)</td>
<td>(12)</td>
<td>(21)</td>
<td>(9)</td>
<td>(9)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>High empathy</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Easy escape</td>
<td>.94\textsubscript{b}</td>
<td>.60\textsubscript{b}</td>
<td>.91\textsubscript{b}</td>
<td>.83\textsubscript{b}</td>
<td>.71\textsubscript{b}</td>
<td>.70\textsubscript{ab}</td>
<td>.86\textsubscript{b}</td>
</tr>
<tr>
<td>(17)</td>
<td>(15)</td>
<td>(11)</td>
<td>(12)</td>
<td>(17)</td>
<td>(10)</td>
<td>(7)</td>
<td></td>
</tr>
<tr>
<td>Difficult escape</td>
<td>--</td>
<td>--</td>
<td>.82\textsubscript{b}</td>
<td>.58\textsubscript{ab}</td>
<td>.75\textsubscript{b}</td>
<td>.63\textsubscript{ab}</td>
<td>.63\textsubscript{ab}</td>
</tr>
<tr>
<td>(11)</td>
<td>(12)</td>
<td>(20)</td>
<td>(8)</td>
<td>(8)</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: Numbers in parentheses are the number of subjects in each cell. Cells within a given study not sharing the same subscript differ significantly, $p < .05$.

Studies are as follows:

1. Coke et al. (1978, Experiment 2). Empathy condition determined by median split on empathic concern index. (A false-feedback manipulation of emotion produced parallel effects on helping in this study.)
Table 2 (continued)


5. Toi & Batson (1982). Empathy condition determined by median split on index of predominant emotional response (empathy index minus distress index). (A perspective-taking manipulation of empathy produced parallel effects on helping in this study.)


7. Batson et al. (1983, Experiment 2). Empathy condition determined by median split on index of predominant emotional response (empathy index minus distress index).
Figure 1. Outline of traditional tension-reduction view of vicarious emotion and associated motivation

Other's → Vicarious emotional arousal ("empathic pain" or "empathic distress") → Motivation to reduce one's own arousal → Behavior (possibly helping) to achieve reduction of own arousal
Figure 2

Vicarious emotion → Egoistic → Behavior (possibly helping)

Vicarious emotion → Altruistic → Behavior (helping)

Other's distress

Motivation to reduce own distress

Motivation to achieve reduction of own distress

Motivation to reduce other's distress

Motivation to achieve reduction of other's distress

Figure 2. Outline of archaic view of vicarious emotion and associated motivation