

## An Assessment of Links Between Components of Empathy and Interpersonal Problems

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Four components of empathy were assessed to determine their contribution to six common interpersonal problems. A sample of 251 undergraduate students (129 women, 122 men) were administered the Inventory of Interpersonal Problems (IIP) and the Interpersonal Reactivity Index (IRI) in order to evaluate the link between these measures. Regression analyses were used to evaluate which component of empathy was the greatest contributor to the interpersonal problems. Personal distress was found to contribute to difficulties in being assertive, sociable, submissive, responsible, and too controlling. Low perspective taking contributed to problems with submissiveness, control, sociability, and intimacy. Results are discussed in terms of their application to counseling those with interpersonal problems.

*Keywords:* empathy, Interpersonal Reactivity Index, interpersonal problems, Inventory of Interpersonal Problems

Interpersonal relationships are important because they serve fundamental needs (for an overview, see Baumeister & Leary, 1995), and successful relationships contribute to positive emotions and enhanced self-esteem (Leary, Tambor, Terdal, & Downs, 1995). As a result, people generally will strive to have connections with other people. Unfortunately, interpersonal problems may prevent one's ability to function appropriately in social relationships. Previous research has begun to explore the impact of interpersonal problems, but relatively little is known about what qualities may predispose one to experience them. Thus, the goal of the present study is to predict the experience of interpersonal problems.

### Interpersonal Problems

Interpersonal problems are relatively common experiences, which create distress and cause disruptions in relational functioning (Horowitz, Rosenberg, Baer, Ureno, & Villasenor, 1988). The six interpersonal problems most commonly observed (McDonald & Linden, 2003) and which contribute to poor relational health, are difficulties being assertive, sociable, and intimate, and being too submissive, too responsible, and too controlling. A number of studies have provided evidence that these problems contribute to a decrease in inter-

personal functioning. For example, low sociability has been linked to trust issues and greater perceptions of risk in intimate relationships (Pilkington & Richardson, 1988), as well as a dismissing style of attachment (Duggan & Brennan, 1994) and poor social support (Eisenberg, Fabes, & Murphy, 1995). Assertiveness problems have been associated with cynicism about one's group and overutilization of exit strategies during times of group stress (Naus, van Itersen, & Roe, 2007), whereas problems with control motivation are linked to ostracism and antisocial/aggressive behaviors (Warburton & Williams, 2005). In addition, problems with intimacy have been associated with a host of negative relational outcomes, including social withdrawal and a lack of social support (Pettit & Joiner, 2006), an inability to forgive (Lawler-Row, Younger, Piferi, & Jones, 2006), and conflict resolution difficulties (Cann, Norman, Welbourne, & Calhoun, 2008).

The interpersonal problems also have been linked to other maladaptive psychological issues. Eisenberg, Fabes, and Murphy (1995), for example, found that low positive emotional intensity has been linked to sociability problems. In addition, trait anger was observed to be related to problems with submissiveness (Zians, 2007), and anger in adulthood has been linked to low sociability in childhood (Pesonen, Räikkönen, Keskivaara, & Keltikangas-Järvinen, 2003). Perhaps of more concern, however, is the strong pattern of results in the literature that links interpersonal problems to mental health concerns (Alden, Wiggins, & Pincus, 1990). For example, although they vary in intensity, interpersonal problems

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have been observed to contribute to psychopathology, such as Generalized Anxiety Disorder (Salzer et al., 2008) and Binge Eating Disorder (Eldredge, Locke, & Horowitz, 1998). In addition, problems with being too controlling (or desiring too much control) have been implicated in obsessive-compulsive symptoms (Moulding & Kyrios, 2007) and depression (Zians, 2007). Low assertiveness has been linked to psychological adjustment in detoxified alcoholics (Cooley & Wierzbicki, 1987) and disordered eating patterns (Williams, Power, Millar, & Freeman, 1993). Problems with taking on too much responsibility, as well as low assertiveness and intimacy have been linked to sexual revictimization (Classen, Field, Koopman, Nevill-Manning, & Spiegel, 2001). It has also been shown that patients in therapy with problems in socialization and submissiveness may have increased treatment length (Ruiz et al., 2004).

Given the apparent importance of such interpersonal problems, it is valuable to understand how and when they develop. Unfortunately, little is known about factors that may contribute to them. One study (McDonald & Linden, 2003) has suggested that personality variables, such as psychoticism, extraversion, and neuroticism, may play a role in their experience, but little else is known about why some people develop interpersonal problems and some do not. We believe that the role of other individual difference variables, and in particular ones that are more interpersonal in nature, should be considered. Empathy (and its components) is just such a variable.

### **Empathy**

There is little known in the field about the relationship between components of empathy and interpersonal problems. Empathy refers to the “reactions of one individual to the observed experiences of another” (Davis, 1983). According to Davis’ (1983) model, empathy is a stable personality trait comprised of four components: personal distress (PD), empathic concern (EC), perspective taking (PT), and fantasy (FS). Davis’ model led to the development of the Interpersonal Reactivity Index (IRI; Davis, 1983), a measure comprised of four subscales that assess each aspect of empathy. It is generally believed that these aspects are connected to one another because a certain degree of emotional investment in others is necessary to produce empathy. An individual can display a single aspect of empathy more

than the others and when this occurs, the individual engages in consistent behaviors.

PD is characterized by anguish and intense focus on one’s internal discomfort when seeing others in distress. PD refers to “self-oriented feelings of personal anxiety and unease in tense interpersonal settings” (Davis, 1983). PD is generally regarded as a maladaptive form of empathy since it is associated with anxiety, low self-esteem, chronic fearfulness, and emotional vulnerability (Davis, 1983). PD can be viewed as a tendency to be oriented to one’s own situation due to having little affective distance between self and others (Davis et al., 1999; Poorman, 2002). Insecure attachment styles, which are characterized by high anxiety and high avoidance, were found to be connected to this maladaptive form of empathy (Joireman, Needham & Cummings, 2002a). PD increases the chances of feeling shame and rumination, which increases the focus on the self and prevents prosocial benefits (Joireman, Parrot, & Hammersla, 2002b). PD has also been connected to having negative effects on interpersonal relationships (Leith & Baumeister, 1998). Due to the maladaptive effects of this aspect of empathy, we believe that it will be connected to the most interpersonal problems.

EC is described as focusing on another person’s distress. EC is comprised of “other-oriented feelings of sympathy and concern for unfortunate others” (Davis, 1983). EC is viewed to be a positive form of empathy since it is associated with the secure attachment type (Joireman et al., 2002a). On one hand, EC has been shown to have a connection to anxiety and shyness but, on the other hand, there is a relationship to being less lonely and selflessness (Davis, 1983). This non-selfish concern for others can be viewed as a tendency to orient oneself towards others (Davis et al., 1999). Having higher self esteem and the ability to self reflect is correlated with this aspect of empathy (Joireman et al., 2002b). Having EC for others leads to a decrease in romantic anxiety and avoidance (Britton & Fuendeling, 2005). Due to the focus on others and the positive effects of EC, there is support suggesting it will not be related to many aspects of interpersonal problems.

PT is the ability to understand the viewpoint of others, which contributes to the development of healthy relationships. The PT aspect of empathy consists of the ability to “spontaneously adopt the psychological viewpoint of others” (Davis, 1983). This aspect of em-

pathy has been widely investigated in the literature and is generally believed to be the most positive and important aspect of empathy, which is believed to contribute to healthy relationships (Leith & Baumeister, 1998; Joireman et al., 2002b). Previous research has focused on characteristics of an individual that may be related to PT. An individual who has the ability to engage in PT has better social functioning because PT is associated with the secure attachment type (Joireman et al., 2002b). It allows the person to anticipate the reactions of others, which allows them more rewarding relationships by having greater trust and comfort with closeness (Joireman et al., 2002). An enhanced relationship with others has a secondary benefit of increasing a person's self esteem. Due to this aspect of empathy having a focus on the feelings and needs of others, it has been noted in the literature that PT is generally not related to personal negative emotionality (Davis, 1983). People high in PT have more accurate judgments of others (Bernstein & Davis, 1982). Previous literature suggests that PT will not be connected to interpersonal problems. On the other hand, low PT, which is not being able to take the perspective of others, may be related to the common interpersonal problems.

FS is characterized by loneliness and having compassion for fictional characters. FS is the tendency to "transpose oneself imaginatively into the feelings and actions of fictitious characters in books, movies, and plays" (Davis, 1983). This aspect of empathy is the least investigated in the literature and there is little information on its connection to various aspects of interpersonal functioning. However, research has indicated that FS is associated with being shy, lonely, and anxious in social settings. Individuals who have a tendency to display this aspect of empathy may have a tendency to devote more time to nonsocial activities, such as reading and watching television (Davis, 1983). Therefore, the authors believe that FS may be related to various interpersonal problems but not as strongly connected as PD.

The studies reviewed above provide evidence for a strong link between the components of empathy and various aspects of interpersonal functioning. It follows, then, that interpersonal problems would also be linked with empathy. To the best of the authors' knowledge, previous empathy research has not focused on difficulties being assertive, sociable, or intimate, or being too

submissive, too responsible, or too controlling. Because the majority of current research focuses on PT and EC, the four components of empathy, proposed by Davis' model have not been fully researched to determine the types of interpersonal problems that may occur with poorly functioning aspects of empathy.

The following three hypotheses are derived from our review of the literature above. First, it is hypothesized that PD will be correlated all six interpersonal problems since it is a maladaptive form of empathy. Second, problems with assertiveness, submissiveness, and sociability will have a connection to EC since EC has an others focus and these problems divert attention to the self. Finally, it is hypothesized that low PT will be related to numerous interpersonal problems due to an individual's inability to take the perspective of another person while they are focused on their personal situation. Since there is little known about FS, the authors did not make any hypotheses regarding its connection to the six interpersonal problems. However, due to theory and research findings, each of the six interpersonal problems are predicted to be related to one or more of the four constructs of empathy.

## Method

### Participants

Participants were 251 undergraduate students (129 women, 122 men), over the age of 18 who had been recruited through a subject pool for participation. Participation credits were given for Introductory Psychology courses. The sample was 94% Caucasian with a mean age of 19.42 years.

### Materials

As part of a larger study, participants completed a survey comprised of several measures. In addition to demographic items, participants completed two scales that were used in this study.

**Interpersonal Reactivity Index.** (IRI; Davis, 1983, Davis, Luce, & Kraus, 1994; Poorman, 2002). This is a measure of empathy consisting of four different subscales each measuring a separate component of empathy on a 5-point Likert scale. Each scale consists of 7 items; including two measures for the cognitive components of empathy [Perspective Taking (PT) and Fantasy (FS)] and two measures of the emotional com-

ponents of empathy [Empathic Concern (EC) and Personal Distress (PD)]. The PT scale reflects the tendency to take on another person’s point of view in everyday life. A sample item for this scale is “I sometimes try to understand my friends better by imagining how things look from their perspective.” The FS scale gauges the tendency to imagine a fictional character’s feelings. A sample item for this scale is “When I am reading an interesting story or novel, I imagine how I would feel if the events in the story were happening to me.” The PD scale measures the reactions of personal discomfort, uneasiness, and distress when exposed to the distress of others. A sample item for this scale is “Being in a tense emotional situation scares me.” The EC scale reflects the tendency to experience feelings of sympathy, compassion, and concern for unfortunate others. A sample item of this scale is “I often have tender, concerned feelings for people less fortunate than me.”

**Inventory of Interpersonal Problems (IIP;** Horowitz, Rosenberg, Baer, Ureno & Vallasenor, 1988). This is a 127-item measure of the level of difficulty associated with six different interpersonal problems using a 5-point Likert scale. The IIP is a widely used measure

of current interpersonal problems, treatment progress, and a predictor of treatment outcomes. It is sensitive to change in interpersonal problems and is believed to be a good measure for interpersonal problems (Leising, Rehbein, & Sporberg, 2007). The problems in particular domains of interpersonal connections measured by the IIP include problems being assertive when needed by showing self-confidence (“I find it hard to be assertive”), sociable or friendly with others (“It is hard for me to socialize with other people”), submissive when appropriate through compliance (“It is hard for me to do what another person wants me to do”), intimate with others (“It is hard for me to make a long-term commitment to another person”), handing responsibility placed upon them (“I feel too responsible for solving other people’s problems”), and needing control (“I am too controlling of other people”).

A series of six regression analyses were carried out to assess the degree of contribution each component of empathy had on each of the six interpersonal problems. In each regression equation, the empathy components were used to determine the extent to which they contributed to a particular interpersonal problem. Due to

Table 1  
*Summary of Means and Standard Deviations for Components of Empathy and Interpersonal Problems*

Measure	Mean	Standard Deviation
IRI		
Personal Distress	20.092	3.307
Empathic Concern	26.160	4.794
Perspective Taking	22.000	4.624
Fantasy	23.475	6.062
IIP		
Assertiveness	2.427	.717
Submissiveness	2.224	.601
Responsibility	2.604	.598
Control	2.323	.534
Sociability	2.189	.600
Intimacy	1.961	.531
Total	2.323	.475

*Note.* N = 251. IRI= Interpersonal Reactivity Index; scores range from 7-35. IIP = Inventory of Interpersonal Problems; scores range from 0-4.

## AN ASSESSMENT OF LINKS BETWEEN COMPONENTS

Table 2  
*Summary of Results from Regression Analyses Between Empathy and Interpersonal Problems*

Empathy and Interpersonal Problems	$R^2$ Change	$p$ value	$\beta$
<b>Assertiveness</b>			
Step 1: Personal Distress	.1423	.0000	.3772
<b>Submissiveness</b>			
Step 1: Perspective Taking	.1125	.0000	-.3543
Step 2: Personal Distress	.0432	.0004	.2089
<b>Responsibility</b>			
Step 1: Personal Distress	.1282	.0000	.3312
Step 2: Fantasy	.0309	.0028	.1778
<b>Control</b>			
Step 1: Personal Distress	.0619	.0001	.2672
Step 2: Perspective Taking	.0390	.0012	-.1984
<b>Sociability</b>			
Step 1: Personal Distress	.1068	.0000	.3413
Step 2: Perspective Taking	.0260	.0070	-.1620
<b>Intimacy</b>			
Step 1: Perspective Taking	.0544	.0002	-.2332

*Note.* A Bonferroni correction was used for these analyses so that the criterion level of significance was  $p < .0083$ .

the multiple analyses conducted, a Bonferroni correction was used with a revised significance criterion of .0083 to reduce possible Type I errors. The revised significance level was obtained by dividing the original alpha of .05 by the number of comparisons, the six interpersonal problems.

### Results and Discussion

To show the distribution of scores on each measure, Table 1 presents the means and standard deviations for this sample. As evident in Table 2, analyses revealed that at least some of the components of empathy contributed to each of the six interpersonal problems. Previous research findings have suggested this possibility but there has not been a study conducted on these specific interpersonal problems and their connection to the components of empathy. Consistent with the authors' predictions, each interpersonal problem was connected to at least one aspect of empathy.

**Personal distress.** In partial support of our first hypothesis, PD was associated with the highest number of

interpersonal problems, indicating what appears to be a connection between interpersonal problems in general and PD about other's suffering. Whereas the authors originally hypothesized that PD would be connected to all six of the interpersonal problems, the results indicate no significant connection to intimacy. Since problems with intimacy have been associated with social withdrawal (Pettit & Joiner, 2006), there may be no connection to PD because PD includes having little affective distance between self and others (Davis et. al., 1999; Poorman, 2002).

These results are interesting because the literature focuses on PT more than any other aspect of empathy but these results point to PD having a bigger role than low PT for interpersonal problems. PT is found overwhelmingly in the literature but it was not the main finding in this study: PD had a bigger contribution to interpersonal problems. This may be explained by examining the self-oriented characteristic of PD. If an individual is concerned primarily with their own discomfort and suffering during a tense situation then it will cause an increase in focus on interpersonal problems,

which will only increase the impact of those interpersonal problems. In other words, focusing on the distress associated with interpersonal problems only enhances the distress.

**Empathic concern.** Contrary to our hypotheses, EC did not have a significant connection to any of the interpersonal problems. The authors hypothesized connections to assertiveness, submissiveness, and sociability but the results did not support these assumptions. This may be due to EC being characterized as a non-selfish concern for another's distress, which limits the amount of attention and focus that can be placed on one's personal discomfort. In other words, an individual who focuses entirely on the people in distress may not have the ability to pay attention to their own distress.

**Perspective taking.** Consistent with our third hypothesis, PT was inversely related to a number of interpersonal problems. This healthy expression of empathy was shown to have a connection to interpersonal problems when an individual lacked the ability to take on another's point of view. Low PT may contribute to interpersonal problems because it limits one's ability to orient to another and instead causes a focus on the self. Specifically, low PT was related to difficulties in submissiveness, control, sociability, and intimacy. An increased focus on oneself may explain why PD and low PT have such a large contribution to interpersonal problems.

Previous research indicates that there is an important relationship between interpersonal behavior and psychopathology. There are also numerous studies that indicate that various interpersonal characteristics, such as empathy, can be associated with therapeutic outcome (Ruiz et al., 2004). For example, "empathic skills support long-term social commitment and are an essential prerequisite for higher social functioning" (Bailey, Henry, & Von Hippel, 2008). The current study has important implications for counseling since empathy and interpersonal problems are involved in the therapy setting. These two measures could be used together in clinical settings in order to gain a better understanding of the person seeking treatment. These findings can give the counselor insight into how certain interpersonal problems may be connected to the client's relationships with others and may help identify people who are vulnerable to certain interpersonal problems based upon their empathic abilities.

Although this study was not designed to show causation, it is a reasonable supposition that more trait-like levels of empathy influence state-like interpersonal problems, rather than vice versa. The directionality of this relationship is at least partially supported by previous research. For example, teaching clients empathic skills was seen to reduce some interpersonal problems in female undergraduate students (Brems, Fromme, & Johnson, 1992). In light of the results from our study, this causal direction would suggest that increasing PT could reduce interpersonal problems with submissiveness, control, sociability and intimacy. In addition, decreasing PD could help to alleviate interpersonal problems with assertiveness, submissiveness, responsibility, control and sociability. It appears that empathy training can be done in a relatively short period of time and may even have secondary effects on other interpersonal aspects (Brems et al., 1992). For example, teaching clients to be empathetic towards others may increase their awareness of their own personal feelings. This increased awareness may provide insight on one's effect on others, which may result in increased helping behaviors (Brems et al., 1992).

There are some limitations in this study that need to be considered. One limitation is that the sample consists of college students. It would be beneficial to see if these results are consistent with community and clinical samples. Another limitation is the correlational design, which does not allow causal claims to be made regarding the impact of empathy on interpersonal problems. A future direction for this study would be to investigate this by studying the impact of interventions aimed at increasing aspects of empathy on a person's interpersonal problems. Manipulating components of empathy and determining the effect on interpersonal problems would provide valuable insights for treatment research.

There is a general consensus that a lack of empathic skills is associated with numerous difficulties in an individual's life. However, research has not adequately examined the types of interpersonal problems that result from insufficient empathy. This study lays the groundwork for the specific problems associated with empathy in order to clearly support the assumption that interpersonal difficulties are linked to low empathy.

## AN ASSESSMENT OF LINKS BETWEEN COMPONENTS

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