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Empathic Concern and Prosocial Behaviors:

A Test of Experimental Results Using Survey Data

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Abstract:

This study uses survey data to test the correlation between empathic concern and fourteen different prosocial behaviors, including informal help to individuals and formal helping through institutions. Statistically significant correlations were found for ten behaviors, but substantively meaningful correlations were only found for three, all of which were spontaneous, informal helping behaviors, where the individual needing help was directly present. The findings indicate that empathic concern may not be an important motivator for planned decisions to help others who are not immediately present, which often occurs with volunteering, charitable giving, and blood donation. The weak correlation between empathic concern and most helping behaviors indicates that individual differences in dispositional empathy may not play much a role in decisions to help others.

Keywords: Empathy, altruism, prosocial behaviors, volunteering, charitable giving, helping

Empathic Concern and Prosocial Behaviors: A Test of Experimental Results Using Survey Data

The last two decades have seen tremendous growth in the study of empathy as an explanation for prosocial behavior. Developmental psychologists have traced how feelings of empathy play a key role in the moral development of children (Eisenberg, 2002; Hoffman 2000). Experimental psychologists have studied how emotional and cognitive states of empathy, sympathy, and personal distress correlate with helping behaviors in laboratory settings (Batson, 1991, 2002). Neurobiologists have mapped the brain centers that are activated when feelings of empathy take place, and have studied how empathy is impaired when certain regions of the brain are damaged (A. Damasio, 2002; H. Damasio, 2002). All of this research holds that empathy is an important component of moral thought and behavior in general, and is an essential component of motivation to perform prosocial or helping behaviors in particular.

Despite the considerable research into empathy in these fields, there has been very little research into whether and how empathic reactions and personal predispositions to empathy predict helping behaviors in non-experimental settings. Most research that does explore this issue has used pseudo-experimental research or retrospective narrative accounts, and has studied small, non-representative samples. Only three studies to date have used large-scale survey research to study the relationship between dispositional empathy and helping behaviors, and none of these studies has examined how empathic concern may differ in its relationship to a range of helping behaviors.

In this article, I present findings from the altruism module of the 2002 General Social Survey (GSS), which show how individual differences in empathic concern correlate with a range of real-life helping behaviors reported on a survey research instrument. Empathic concern had no significant relationship with some helping behaviors, and a statistically significant but substantively weak (Pearson's $r < .10$) relationship with most helping behaviors. Only in informal, spontaneous helping decisions directed towards non-relatives, such as giving money to a homeless person on the street, or allowing a stranger to cut ahead of you in line, was there a statistically significant relationship with a Pearson's correlation greater than .15. These findings, combined with the findings of other studies of empathic concern and real-life prosocial behaviors, suggest that a reevaluation of the relationship between individual predispositions to empathy and helping behaviors may be in order.

Review of the Literature:

Most psychological research treats empathy as a mental state, having both an emotional and a cognitive component. Scientists doing this sort of research manipulate experimental conditions to generate thoughts and feelings of empathy in a subject, and see whether high-empathy conditions are more likely to induce helping. The work of Batson (1991, 2002) follows this strategy, as well as much of the work of Eisenberg (Eisenberg, 2002; Eisenberg et al., 1989; Eisenberg and Fabes, 1998; Eisenberg and Miller 1987).

While the majority of social scientists study empathy as a mental state, some study empathic concern as a stable personality trait or disposition. In experimental studies and a few studies of real-world volunteering, they have found that dispositional empathy correlates with prosocial behaviors. The current study expands this research by testing the degree to which dispositional empathy correlates with a wide range of prosocial behaviors, including volunteering, charitable giving, blood donation, and informal assistance to individuals.

Batson (1991) and Eisenberg (1998) have studied the emotional and cognitive state of empathy most extensively, and while their use of the terms “empathy,” “sympathy,” and “personal distress” differs, the conceptual framework that they use is similar. Eisenberg (1998) defines empathy as “an affective response that stems from the apprehension or comprehension of another’s emotional state or condition, and that is similar to what the other person is feeling or would be expected to feel.” This initial emotion of empathy often leads to “sympathy,” which Eisenberg defines as “feelings of sorrow or concern for the distressed or needy other.” However, empathy can also lead to “personal distress,” a “self-focused, aversive” reaction characterized by “discomfort, anxiety, or concern about one’s own welfare.” Sympathy motivates one to help, while personal distress motivates one to resolve feelings of distress by escaping or avoiding the suffering other. Eisenberg and Batson’s research, as well as the research of many other psychologists, involves manipulating experimental conditions to examine what factors evoke mental states of empathy, sympathy, and personal distress, and to what degree these mental states motivate helping.

In contrast to the mental state approach described above, some researchers conceptualize empathy and empathy-related reactions as a predisposition or personality trait, and study how individual differences in levels of dispositional empathy affect helping behaviors. Davis (1980, 1983, 1994) developed the Interpersonal Reactivity Index (IRI), a scale that measures four aspects of dispositional empathy, empathic concern, personal distress, fantasy, and perspective-taking. Davis defines empathic concern as “the tendency to experience feelings of sympathy and compassion for others in need,” and personal distress as “the tendency to experience distress and discomfort in response to extreme distress in others” (Davis 1994, p. 57). Perspective-taking measures “the degree to which an individual spontaneously takes the point of view of other people in everyday life,” and fantasy measures “the tendency to imaginatively transpose oneself into fictional situations” (Davis, 1994, p. 57). The General Social Survey module on altruism studied in this paper used only the empathic concern subscale of Davis’ IRI. A detailed description of the wording of the items on this scale is provided below. This paper uses the terms “empathic concern” and “dispositional empathy” interchangeably to refer to the personality trait of empathy measured by the GSS.

The second focus of this paper, prosocial behavior, is in some ways even more difficult to define than empathy. Psychologists have studied the motives for helping behavior extensively, and have argued over whether truly altruistic behavior can even exist. While Batson has been able to distinguish other-oriented from self-oriented motivations in his experimental designs (Batson, 1991, 2002), most researchers have concluded that in real-life helping behaviors, such as volunteering, people have both self-

oriented and other-oriented motivations (Batson, Ahmad, and Tsang, 2002; Clary et al., 1998; Cnaan and Goldberg-Glen, 1991). For this reason, many social scientists avoid the term “altruism” and refer to “prosocial behavior” instead. In this paper, the terms “helping” and “prosocial” behavior are used instead of “altruism,” as the survey research instruments used in the study do not distinguish between self-oriented and other-oriented motives for helping.

While the majority of research on empathy and helping has been experimental, there are a few exceptions. Most of these studies have been qualitative or pseudo-experimental studies using small and non-representative samples. Monroe (1996) found that empathic feelings were an important motivator of charitable giving in a small-sample interview study of philanthropists. In Oliner and Oliner’s (1988) study of rescuers of Jews during the Holocaust, an empathic emotional response was an important motivator for about one third of the rescuers. Davis (1983) found that students who scored higher on scales of empathic concern donated more money to a medical charity than less empathic students,

Penner and colleagues have done a number of studies using small or non-random samples that measure dispositional empathy among volunteers and non-volunteers. Some of these studies found statistically significant but weak correlations between variables measuring empathic concern and variables measuring helping, and other studies found no correlations at all. In one study, Penner and colleagues found no statistically significant correlation between empathic concern and informal helping behaviors in a student sample (Penner et al., 1995). In a second study, volunteers scored significantly higher on

empathic concern than non-volunteers, and long-term volunteers scored higher than short-term volunteers (Penner et al., 1995). In a third study of volunteers (Penner and Finkelstein, 1998), empathic concern correlated at Pearson's $r = .21$ ($p < .05$) with length of time spent volunteering. In a survey study using a large but non-random and non-representative self-selected sample (Penner 2002), the correlation (Pearson's r) of empathic concern and number of organizations with which one volunteers was .24, time spent per week volunteering was .11, and length of time of one's career as a volunteer was .18. In all four studies, the correlation between empathic concern and helping was either non-significant or substantively small.

Two recent studies by Mark Davis and his colleagues have gone further than previous work in studying how dispositional empathy affects real-life helping. Davis et al. (1999) found that college students who scored higher on empathic concern were more likely to express interest in participating in volunteer work that brought them into direct contact with the person to be helped. People higher in dispositional empathy were also more likely to find this type of volunteer work rewarding. The authors concluded that "empathy can play an important role in the strategic thinking that precedes a decision to deliberately encounter a needy target," and not just one's reaction to an unexpected encounter with a person in need (Davis et al., 1999, p. 497).

While empathic concern played an important role in volunteer choices in Davis' 1999 study, another study by Davis and colleagues (Davis, Hall, and Meyer, 2003) found no correlation between individual levels of empathic concern and either satisfaction or longevity in volunteering. In a recent essay, Davis concluded that further research is

needed to fully understand the relationship between personal dispositions towards sympathy and personal distress and such outcomes as the decision to volunteer, satisfaction with volunteering, and persistence in volunteering (Davis, 2005).

All of the research cited above used small or non-representative samples. In purely experimental research, the experimenter's control over conditions and the random assignment of subjects to control and experimental groups remove the threats to internal validity usually associated with small, selective samples. However, in most of the studies of empathic concern cited above (Davis et al. 1999; Davis, Hall, and Meyer 2003; Monroe 1996; Oliner and Oliner 1988; Penner et al. 1995; Penner and Finkelstein 1998; Penner 2002), subjects were not randomly assigned to experimental groups, and this makes the small and non-random nature of the sample problematic. Even when internal validity is not a concern, external validity may be a problem, as one cannot be sure that the same factors that motivate helping in experimental settings motivate real-world helping behaviors.

Survey research on dispositional empathy and helping behaviors using large random samples can help account for these concerns, and can illuminate whether empathic concern correlates with real-life helping behaviors in the general population. Survey research contains its own validity problems, particularly with recall and social desirability bias, and these concerns are addressed in the limitations section of this paper. Nevertheless, survey research can add to our knowledge of how empathic concern relates to helping, and is unfortunate that there have been only three published studies to date of

the relationship between empathic concern and helping behaviors using large, random, and representative samples.

Bekkers' (2005) study of volunteering in the Netherlands, using a random sample of 1283 survey respondents, found a statistically significant correlation between empathic concern and participation in voluntary associations. In a later study, Bekkers (2007) examined the relationship between empathic concern and perspective taking and three altruistic outcomes, blood donation, post-mortem organ donation, and monetary donations to charity. Bekkers found no statistically significant relationship between either perspective taking or empathic concern and blood donation or post-mortem organ donation, but he did find a statistically significant correlation between empathic concern and charitable donations. This relationship was weak, however, as the reported adjusted R squared was only .0377 for the entire multivariate model, which included age, sex, and a number of personality measures in addition to empathic concern and perspective taking.

The other study examining the relationship between empathic concern and helping (Smith 2006) used the 2002 GSS data as its source, the same data used in this paper, and also used data from the 2004 GSS. Smith initially published his findings using only the 2002 GSS data (Smith 2003), but updated the study in 2006, adding data from the 2004 GSS. In most respects the 2006 version of the study is identical to the 2003 version, so I treat them as one study here. Smith generated an index variable by combining the scores of all fifteen helping behaviors in the 2002 GSS, and found that this variable correlated with empathic concern at $r = .23$. Smith did not, however, analyze the relationship between empathic concern and each individual helping behavior. The current

study expands upon Smith's work by examining which types of helping behaviors best correlate with empathic concern, and analyzing why some helping behaviors correlate more than others.

As the review above shows, there have been only three studies of empathic concern and helping using survey research on a random and representative sample. One survey research article (Bekkers 2005) examined participation in voluntary associations, only some of which could be considered altruistic or helping-oriented, while a second (Bekkers 2007) measured the relationship between empathic concern and three formal helping behaviors, blood donation, organ donation, and charitable giving. The third study (Smith 2003/2006) correlated empathic concern with an aggregate measure of many unrelated helping behaviors. No study has used survey research to explore how empathic concern may vary in its relationship with many different types of helping behaviors. In this article, I attempt to fill this gap in our knowledge by examining the relationship between empathic concern and fourteen different prosocial behaviors, including volunteering, charitable giving, blood donation, informal help to strangers, and help to friends and family, using data from a large, nationally representative survey.

Theory and Hypotheses:

Applying the findings of experimental research on empathic concern and helping to survey research is difficult, as the differences between real-life helping situations and experimental situations are so great. The complexity and variety of motives for real-life prosocial behaviors, and the inaccuracies of measurement that go with survey research,

further complicate the picture. Experimental research generally presents subjects with a sudden and unexpected decision to help another person, who is present before the subject. In these situations, emotions and intuitive judgments greatly influence behavior, so it is not surprising that empathic concern or sympathy-producing situations correlate with helping.

In many real-life situations, however, the decision to help is made in advance, after a period of reflection and consultation with others. Formal helping behaviors, such as charitable giving, volunteering, and blood donation, generally involve a planned decision made at a time when the person who will potentially receive the help is not present. It is possible that feelings of empathy might be evoked when an individual is deciding whether to provide these forms of help, but it seems likely that the strength of these feelings would be less than when the person helped is immediately present. Some volunteer experiences result in direct contact between the volunteer and the help recipient, but charitable giving and blood donation rarely involve direct contact with the recipient of help.

In addition to the fact that feelings of empathy may be less strong at the time the decision to help is made in many non-experimental helping situations, other factors may have a larger influence on helping decisions, and may override the effect of feelings of empathy. Internal and external norms of moral obligation may determine helping behaviors towards friends and family, and social networks influence the chances that individuals will be asked to provide help. In experimental research, manipulations of the conditions tend to strip these other factors from the situation so that empathy can best be

measured. In non-experimental situations, these other factors may have such a strong effect that the effect of empathic thoughts and feelings may be obscured, and individual differences in dispositional empathy may have little or no effect on helping.

Overall, one would expect empathic concern to most correlate with helping in real-life situations that are most similar to experimental situations. These would be situations in which an individual is suddenly presented with a stranger who needs help, in an informal (non-institutional) and one-time setting. Helping friends and family members, helping in formal, institutional settings, and decisions to engage in planned, repeated helping behaviors, made when the person to be helped is not immediately present, would all be expected to correlate less with dispositional empathy. This line of reasoning generates three specific hypotheses:

H1: Empathic concern will correlate more with real-life situations involving a spontaneous than a planned decision to help. A few of the GSS helping behaviors clearly involve spontaneous decisions to help: allowing someone to cut ahead in line, offering to carry heavy items for somebody, giving up a seat on public transportation, and giving directions to a stranger. Giving money to a homeless person on the street may at times be a planned activity, but it seems likely that most decisions to give money to a homeless person are made spontaneously, in response to an unexpected request for aid. Planned helping decisions include blood donation, giving money to charity, formal volunteering, helping take care of someone's house or possessions while they are away, loaning someone money, and helping someone find a job. These decisions can at times be spontaneous ones, made in response to an unexpected direct request, but are more often

planned than such actions as giving up a seat on public transportation or giving a stranger directions.

Some behaviors may be either spontaneous or planned, such as helping someone with housework, loaning an item to a friend or neighbor, and consoling a depressed friend or relative. While the division between spontaneous and planned helping is not clear for all the GSS helping behaviors, at least five of these behaviors are always or almost always spontaneous, and would be more likely to correlate with empathic concern than the other, more planned behaviors. Thus, it is predicted that empathic concern will most correlate with these five behaviors: allowing someone to cut ahead in line, offering to carry heavy items for somebody, giving up a seat on public transportation, giving directions to a stranger, and giving money to a homeless person on the street. Empathic concern is expected to correlate less with blood donation, giving money to charity, formal volunteering, helping take care of someone's house or possessions while they are away, loaning someone money, and helping someone find a job.

H2: Empathic concern will correlate more with informal helping behaviors than formal ones. The decision to engage in formal, institutionalized helping behaviors such as charitable giving, blood donation, and volunteering generally takes place in advance of the actual behavior, and without direct contact with the person helped. In decisions to participate in formal helping, empathic concern and other emotional factors should have less influence than in informal helping decisions, which are more often made where the recipient is present. Formal helping behaviors include giving blood, giving money to

charity, and volunteering with a charitable or religious institution. The other helping behaviors measured by the GSS are informal ones.

H3: In informal helping situations, empathic concern will correlate more with helping behaviors directed towards distant others (neighbors and strangers than with helping behaviors directed towards close others (friends and family)). Decisions to help family members are governed by a widely shared set of norms of moral obligation (Nock, Kingston, and Holian 2006; Rossi and Rossi 1990). When close relatives such as parents, children, or siblings ask for help, most people feel obligated to help regardless of their own dispositions or feelings. Help requests from more distant relatives and friends are also felt as an obligation, albeit less strong of an obligation as help requests from close kin. By contrast, people feel very little obligation to help non-relatives and strangers. When responding to requests for help from strangers an individual's dispositional empathy may play an important role, but one's response to requests for help from friends and family may be governed more by norms of obligation than by feelings of empathic concern.

The GSS survey has five items that specify the recipient of help is someone the respondent knows personally: helping with housework, lending money, consoling a depressed person, and helping someone find a job. It has one item for which the context implies that the person is known personally, although the question wording does not specify this, taking care of someone's pets or plants while they are away. The GSS has six items in which the question wording specifies that the recipients are "someone you don't know well" or "a stranger" (giving money to a homeless person, allowing a

stranger to go ahead in line, offering a seat on a bus, carrying a stranger's belongings, giving directions, and letting someone you don't know well borrow an item). Because norms of moral obligation apply more strongly in helping close others than distant others, it is predicted that empathic concern will correlate more with help offered strangers and acquaintances than with help offered to friends, family, or other individuals whom the respondent "knows personally."

Data and Methods:

This study uses data from the 2002 National Altruism Study, which was administered as a module of the General Social Survey (GSS), and was given to a randomly selected half of the 2,765 respondents to the GSS. The 2002 GSS had a response rate of 70.1%, and the data set includes weight variables to account for non-response, which were used in this study. The 2002 GSS measures fifteen different pro-social behaviors, three of which are formal actions taken through institutions, and eleven of which are informal, person to person activities. I omitted one questions, whether the respondent had returned incorrect change, as this question seems to measure honesty rather than helping. Four of the eleven informal helping questions were located on a different part of the survey, with a different introduction and were given to a slightly smaller sub-sample. The question format was also different, as the other eleven questions were asked by an interviewer but these were given through a survey questionnaire.

The GSS asked individuals to recall how often they had done each activity in the past year, with the response categories being more than once a week, once a week, once a

month, two or three times in the past year, once in the past year, and not at all during the past year. To make OLS regression possible, I transformed the ordinal dependent variables into an interval scale. I recoded never to zero, once per year to 1, two or three times a year to 2.5, once per month to 12, once per week to 52, and more than once a week to 75. In doing so, I followed Smith (2003, 2006), but I analyzed each helping variable separately, instead of following his practice of adding them together to create a single scale. Table 1 lists the percentage of people who had done each helping behavior at least once in the previous year, the median category of the original ordinal variable, and the mean and standard deviation of each variable after recoding.

(Table 1 about here)

The 2002 GSS incorporated the empathic concern subscale of the Davis Interpersonal Reactivity Index (Davis, 1980, 1983; Smith, 2003, p. 2). These items ask respondents to agree or disagree with a series of statements, such as “I often have tender, concerned feelings for people less fortunate than me,” and “I would describe myself as a pretty soft-hearted person.” These were averaged together to make a scale measured from one to five, with five being the most empathic. Most respondents rated themselves highly, with the mean being 3.97 (standard deviation = 0.73), and women (mean = 4.16) rated themselves higher than men (mean = 3.77). The Cronbach’s alpha measurement of reliability for the total sample is .746. While it is unfortunate that only the empathic concern subscale of Davis’ IRI was included in the GSS, studies using some or all of the other subscales have found that the empathic concern subscale is generally the best predictor of altruistic behaviors (Davis 1994; Bekkers 2005, 2007).

Methods:

To test whether the helping behaviors could accurately be divided according to the dimensions specified in the three hypotheses, I performed a factor analysis on these variables using principal components analysis and varimax rotation.

To test bivariate correlations between empathic concern and helping behaviors, I used both Ordinary Least Squares (OLS) and logistic regression. As the distribution of most of these variables was not normal, OLS regression may underestimate the true correlation with empathy. To account for this, I also recoded the variables into dichotomous variables, with 1 = any activity in the previous year, and 0 = no activity. I then used logistic regression on these dichotomous variables. I measured the strength of association between empathic concern and the helping behaviors with Pearson's R squared in OLS regression, and with Nagelkerke's pseudo-R squared in logistic regression (Nagelkerke 1991).

I also did multiple regressions of helping behaviors on empathic concern and controls for sex, race, age, health, education, income, and religious services attendance. As race, age, and health showed no statistically significant effect on helping behaviors in the multivariate models, I excluded them from the model reported here. The multivariate results are similar for most helping behaviors, so due to space considerations I report the results for only three helping behaviors here, volunteering, charitable giving, and giving

money to a homeless person (full results available from author upon request). [These are provided as Tables A1.-A6 in the reviewers' copy.]

V. Findings:

Factor analysis:

Principal components analysis of the helping behaviors in the GSS revealed four factors with Eigenvalues above one, which together account for 46.0% of the variance in the fourteen items. The analysis demonstrated some variation by formal and informal helping, and stranger versus family or friend helping, and these relationships were more evident in the results when varimax rotation was used, indicating that they are not independent. In varimax rotation, the six variables measuring informal help given to strangers load positively on the first factor, with loadings between .309 and .646. Four variables measuring help to people one knows personally load positively on the second factor, with loadings between .582 and .727: helping someone find a job, helping someone with housework, lending money, and consoling a depressed person. Donating time (.738) and money (.772) to charity load positively on the third factor, as does giving money to a homeless person (.359). The fourth factor has a somewhat strange pattern, as it has a strong positive loading for taking care of someone's plants or animals while they are away (.606) and a negative loading (-.790) for giving blood (full results available from the author upon request) [Results are printed as Tables A.9-A.10 in the appendix of the reviewer copy].

Overall, the factor results support the distinction made in Hypothesis Two between formal helping (factor three) and informal helping (factors one and two), and the distinction made in Hypothesis Three between informal helping to strangers (factor one) and informal helping to people one knows personally (factor two). The factor analysis did not, however, support the distinction made in Hypothesis One between spontaneous and planned helping decisions.

Bivariate regression:

Table 2 shows the results of bivariate OLS and logistic regression analyses of all fourteen GSS helping behaviors on empathic concern. Eight of the twenty-one helping variables showed a significant relationship with dispositional empathy at $p = .05$ using OLS regression, and nine showed a statistically significant relationship using logistic regression. However, the substantive relationship between empathic concern and most helping variables was slight. For OLS regression, none of the R-squared values exceeded .04, and for logistic regression, the highest Nagelkerke pseudo R-squared value was .07.

H1: Spontaneous versus planned helping decisions: There was some support for the hypothesis that dispositional empathy would affect spontaneous rather than planned helping, but the results were not consistent. One of the strongest associations between empathic concern and helping was found for the spontaneous behavior of allowing a stranger to cut ahead in line (OLS R-squared = .016, logistic R-squared = .070), and associations were also found in two behaviors which sometimes involve a spontaneous decision to help, consoling a depressed person (OLS R-squared = .037, logistic R-squared

= .009) and giving money to a homeless person (OLS R-squared = .024, logistic R-squared = .046). However, many other spontaneous helping actions had little or no relationship to dispositional empathy. Carrying heavy items for someone had a statistically significant but trivial relationship with empathic concern (OLS R-squared = .007, logistic R-squared = .019), and giving up one's seat on public transportation and giving directions had no significant relationship to empathic concern.

H2: Informal versus formal helping: The highest R squared values in the GSS were found for three informal helping behaviors, giving money to a homeless person, consoling a depressed person, and allowing a stranger to cut ahead in line. The results here were also inconsistent, however, as six of the informal helping behaviors (loaning money, helping take care of possessions while away, helping find a job, loaning an item, giving up one's seat, and giving directions) had little or no significant relationship with empathic concern.

H3: Helping distant versus close others: There was little support for this hypothesis, as there was little difference between the two groups in the strength or significance of the correlation between empathic concern and helping. Empathic concern correlated significantly with four of the five close-other helping behaviors (all except helping someone find a job), and with four of the six distant-other helping behaviors (all except giving up one's seat and giving directions). Of the three variables for which either the OLS R-squared or the logistic pseudo R squared values were greater than .02, one, consoling a depressed person, was directed towards close others, and two, giving money

to a homeless person and allowing someone ahead in line, were directed towards distant others.

Multivariate regression:

The multivariate results show that, for most helping behaviors, empathic concern has an effect independent of sex, age, income, education, and religiosity. However, in most cases these five variables are much better predictors of helping than empathic concern. Table 3 shows multivariate logistic regression results for two formal and one informal helping behaviors from the GSS survey: volunteering, formal charitable giving, and giving money to homeless persons. The addition of sex, age, income, education, and religiosity has little effect on the slope coefficient or significance level of empathic concern in the multivariate models for volunteering and giving to the homeless, but empathic concern becomes non-significant in the full model for charitable giving.

The multivariate models represent a great increase in predictive power for volunteering and charitable giving over the bivariate model, whether one looks at the pseudo-R-squared measures or at the increase in predictive accuracy of the model. This is not the case for giving money to homeless persons. Besides empathic concern, only religious attendance was a statistically significant predictor of helping at $p < .05$, and the addition of the four new variables only slightly increased the predictive power of the model.

Multivariate regressions of the other helping variables in the GSS show a pattern similar to that for charitable giving and volunteering, in that the addition of variables for

gender, income, education, and religious attendance greatly increases the predictive power of the model (results available from the author upon request) [These results are provided in the reviewers' copy as Appendix Tables A.1-A.7.] These results imply that gender, income, education, and religious attendance seem to be more substantively significant predictors of helping behaviors than empathic concern.

Discussion, Limitations, and Conclusion:

While some of the hypotheses received at least partial support by the data, the most important finding was the overall weakness of empathic concern as a predictor of real-life helping behaviors. The first hypothesis, that empathic concern would better predict spontaneous than planned helping decisions, was only partially supported. Some spontaneous face to face helping decisions correlated relatively strongly, such as allowing someone to cut in line and giving money to a homeless person, but other spontaneous, face to face helping behaviors did not correlate significantly, such as giving up one's seat on public transportation or giving directions. The results in regards to formal versus informal helping behaviors were inconsistent as well, as empathic concern predicted some informal helping behaviors but not others. Finally, the hypothesis that empathic concern would predict helping strangers but not friends and family was not supported.

This study suffers from the usual limitations of survey research that uses retrospective, self-reported measures. As Smith (2003, 2006) pointed out, both empathic concern and reports of helping behaviors are subject to social desirability bias. Respondents may not be able to recall very accurately the amount of helping behaviors

they participated in over the previous year. Many of the helping behaviors depended upon being presented with the opportunity to help, and the presence or absence of opportunity is a random factor that would tend to obscure the correlation between these types of helping and empathic concern (Smith 2006:5). Similarly, Davis (2005) has argued that the personality trait of empathic concern truly is important in motivating helping, and that imperfect measures and methods explain the lack of correlation found in non-experimental studies.

Some of the findings of the current study argue against this interpretation, however. Social desirability bias, recall problems, and the variations in the opportunity to help would also tend to obscure the relationship between age, sex, income, education, and religiosity and helping, but these variables do show a statistically significant relationship with helping behaviors that is substantively much stronger than the relationship found with empathic concern. This finding, combined with the weak relationships between empathic concern and helping found in other studies, is grounds to justify a reevaluation of some of the assumptions about the relationship between empathy and helping. How, then, can one justify the strong evidence found in experimental research and developmental psychology with the weak and inconsistent relationships found in survey studies of real-life helping behaviors?

The answer seems to be that empathy is an essential building block of moral thought and behavior, but that individual variations in dispositional empathy, above a certain minimum, have little effect on moral action. Studies of psychopaths indicate that they matured without developing empathy, and that their social and moral functioning is

crippled as a result (Hare, 1993, 1998). Studies of people who suffer damage to areas of the brain where empathy is thought to be processed indicate that these people seem to lose their moral compass after their injuries (A. Damasio, 2002; H. Damasio, 2002). However, as long as an individual possesses some minimal amount of empathy, moral thoughts, feelings and behaviors are possible. It seems likely that these other factors, of which empathy is a cause or component, are better explanations of variation in adult prosocial behaviors.

The findings of this article do not contradict Batson's assertion that empathic thoughts and feelings are an important motivator of altruistic action in particular experimental situations, or Eisenberg and Hoffman's assertion that empathy is an important part of moral development. But the current findings, combined with the findings of Davis' and Penner's earlier studies, indicate that individual differences in the personality trait of empathic concern may have little or no relationship to most real-life helping behaviors.

Future research on empathic concern and helping should take into account how empathic concern interacts with other personality traits, values, and moral dispositions to cause helping. This research has already begun, with Davis' separation of dispositional empathy into four sub-scales, Bekkers' work on empathic concern and personality factors, and Penner's work on the components of an altruistic personality. A second step would be to examine how empathic concern and other personality traits interact with social context and demographic variables to create helping. Bekkers and Penner have begun this work, but only as a sketch. Future research should no longer search for direct

relationships between empathic concern and prosocial behaviors, but should examine how empathy interacts with other values, moral orientations, and personality traits to motivate helping.

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Table 1: Descriptive statistics for helping behaviors:

	Percentage having done at least once:	Median times/year:	Mean times/year:	Standard deviation:
<i>Formal helping</i>				
Volunteered for charity ^a	44.2	Never (in last year)	16.7	17.8
Gave money to charity ^a	77.3	2-3	9.2	17.1
Donated blood ^a	15.3	Never	0.3	1.0
<i>Informal helping to close others</i>				
Talked to a depressed person ^b	92.5	12	24.5	28.8
Helped someone with housework ^b	78.1	2-3	16.3	25.7
Loaned someone money ^b	46.5	Never	3.1	10.4
Took care of someone's house or possessions while they were away ^a	55.1	1	2.0	9.1
Helped someone find a job ^b	56.4	1	1.9	8.9
<i>Informal helping to distant others</i>				
Gave directions ^a	87.2	2-3	5.2	14.7
Allowed to cut ahead in line ^a	85.7	2-3	5.1	14.0
Gave money to a homeless person ^a	61.8	1	3.0	10.7
Gave up seat ^a	40.8	Never	1.7	8.3
Carried someone's belongings ^a	43.8	Never	1.6	7.9
Loaned an item ^a	38.8	Never	1.2	6.6

^a Valid N between 1352 and 1362.^b Valid N between 1140 and 1144.

Table 2: OLS and logistic regression of helping behaviors on empathic concern:

	OLS		Logistic	
	R ²	b	R ²	Exp(B)
<i>Formal helping:</i>				
Give to charity ^a	.010	2.465**	.011	1.326***
Volunteer ^a	.005	1.763**	.022	1.435***
Give blood ^a	.001	.031	.000	.940
<i>Informal helping to close others</i>				
Consoled depressed person ^b	.037	7.711***	.009	1.383*
Help with housework ^b	.012	3.985***	.013	1.366**
Loaned money ^b	.007	1.180**	.000	1.146
Help while away ^a	.001	.515	.005	1.181*
Help find job ^b	.000	-.154	.000	.973
<i>Informal helping to distant others</i>				
Give to homeless ^a	.024	3.089***	.046	1.699***
Allow ahead in line ^a	.016	3.250***	.070	2.162***
Carry heavy items ^a	.007	1.313***	.019	1.399***
Loan an item ^a	.001	.320	.004	1.172*
Give up seat ^a	.001	.085	.002	1.128
Give directions ^a	.000	.586	.000	.827

^a p ≤ .10 * p ≤ .05 ** p ≤ .01 *** p ≤ .001

^a Valid N between 1352 and 1362.

^b Valid N between 1140 and 1144.

Table 3: Multivariate logistic regressions of volunteering, charitable giving, and giving to homeless persons (N = 1215).

	Volunteer		Give to charity		Give to homeless	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Empathy	1.511***	1.342***	1.334**	1.167	1.635***	1.567***
Female		1.271^		1.385^		1.079
Age		.990**		1.026***		1.000
Income		1.006**		1.027***		1.037^
Education		1.130***		1.188***		1.061*
Religious attendance		1.225***		1.173***		.993^
Constant	.159***	.019***	1.205	.010***	.252***	.183***
χ^2	25.6	176.4	8.9	247.7	34.8	49.8
df	1	6	1	6	1	6
-2 Log Likelihood	1648.2	1497.5	1242.2	1003.5	1557.1	1542.1
% Correct base	54.7	54.7	78.9	78.9	63.7	63.7
% Correct model	57.1	66.0	78.9	81.5	63.8	64.9
Nagelkerke R-squared	.028	.181	.011	.287	.039	.055

^ p ≤ .10

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table A1: Multivariate logistic regressions of other dependent variables

	Give blood		Console depressed		Allow in line	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Empathy	.922	.932	1.228	1.050	2.442***	2.434***
Female		.688*		3.163***		1.100
Age		1.003		1.010*		1.008**
Income		1.069*		1.164***		1.071*
Education		1.137***		1.002		1.060^
Religious attendance		.975***		.968***		.981***
N	1215	1215	1042	1042	1207	1207
Constant	.264***	.287*	6.091**	1.107	.213***	.108***
χ^2	0.6	54.3	1.5	74.1	60.1	103.7
df	1	6	1	6	1	6
-2 Log Likelihood	1069.8	1016.1	517.1	444.4	895.5	852.0
% Correct base	84.0	84.0	93.2	93.2	86.5	86.5
% Correct model	84.0	84.0	93.2	93.0	86.2	86.7
Nagelkerke R-squared	.001	.075	.004	.175	.089	.150

^ p ≤ .10

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table A2: Multivariate logistic regressions of other dependent variables

	Help w/ housework		Carry items		Loan money	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Empathy	1.333**	1.345*	1.416***	1.600***	1.010	1.067
Female		1.268		.600***		.948
Age		1.000		.999		.997^
Income		1.064*		1.015		1.009
Education		1.021		1.033		.981
Religious attendance		.966***		.978***		.976***
N	1040	1040	1211	1211	1041	1041
Constant	1.218	1.804	.202***	.573	.883	2.525^
χ^2	7.4	79.0	18.1	75.1	.012	45.9
df	1	6	1	6	1	6
-2 Log Likelihood	1060.5	989.0	1647.3	1590.4	1441.2	1395.3
% Correct base	79.0	79.0	55.2	55.2	52.2	52.2
% Correct model	79.0	79.5	56.2	60.9	52.2	61.3
Nagelkerke R-squared	.011	.114	.020	.080	.000	.058

^ p ≤ .10

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table A3: Multivariate logistic regressions of other dependent variables

	Help while away		Loan an item		Give up seat	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
Empathy	1.190*	1.174^	1.176*	1.333***	1.147^	1.245*
Female		1.081		.566***		.758*
Age		1.003		1.001		1.003
Income		1.088***		1.007		1.033
Education		1.000		1.022		1.037
Religious attendance		.997		.983***		.973***
N	1215	1215	1215	1215	1215	1215
Constant	.668	.205***	.363**	.924	.435*	.831
χ^2	4.7	34.7	3.9	48.2	2.9	77.2
df	1	6	1	6	1	6
-2 Log Likelihood	1655.0	1624.9	1640.0	1595.7	1656.8	1582.4
% Correct base	57.1	57.1	59.1	59.1	57.1	57.1
% Correct model	57.0	59.3	59.1	61.6	57.1	59.4
Nagelkerke R-squared	.005	.038	.004	.052	.003	.083

^ p ≤ .10

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Table A4: Multivariate logistic regressions of other dependent variables

	Give directions		Help find job	
	Model 1	Model 2	Model 1	Model 2
Empathy	.907	1.121	.962	1.089
Female		.310***		.704*
Age		1.015***		1.006**
Income		1.104**		1.051*
Education		1.013		1.033
Religious attendance		.971***		.955***
N	1210	1210	1041	1041
Constant	10.787***	19.588***	1.622	4.673***
χ^2	0.6	128.6	0.2	155.3
df	1	6	1	6
-2 Log Likelihood	890.5	762.5	1415.4	15
% Correct base	87.9	87.9	58.1	58.1
% Correct model	87.9	87.9	58.1	68.3
Nagelkerke R-squared	.001	.194	.000	.186

^ p ≤ .10

* p ≤ .05

** p ≤ .01

*** p ≤ .001

Tables A.9.a-e. Principal Components and Varimax Factor Analysis

Communalities

	Initial	Extraction
Gave money to charity	1.000	.600
Charitable volunteering	1.000	.556
Gave seat	1.000	.355
Cut ahead in line	1.000	.359
Helped take care of plants/pets	1.000	.408
Carried items	1.000	.456
Gave directions	1.000	.425
Loaned an item	1.000	.412
Gave money to a homeless person	1.000	.308
Helped find a job	1.000	.381
Helped with housework	1.000	.462
Lent an item	1.000	.537
Talked to a depressed person	1.000	.427
Gave blood	1.000	.642

Extraction Method: Principal Component Analysis.

Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared			Rotation Sums of Squared		
	Loadings			Loadings			Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.709	19.353	19.353	2.709	19.353	19.353	1.995	14.250	14.250
2	1.396	9.973	29.325	1.396	9.973	29.325	1.853	13.234	27.484
3	1.187	8.478	37.803	1.187	8.478	37.803	1.413	10.091	37.575
4	1.036	7.401	45.204	1.036	7.401	45.204	1.068	7.629	45.204
5	.973	6.948	52.152						
6	.890	6.360	58.513						
7	.847	6.050	64.563						
8	.825	5.891	70.454						
9	.767	5.475	75.929						
10	.754	5.383	81.312						
11	.736	5.257	86.568						
12	.694	4.956	91.524						
13	.635	4.533	96.057						
14	.552	3.943	100.000						

Extraction Method: Principal Component Analysis.

Component Matrix(a)

	Component			
	1	2	3	4
Gave money to charity	.184	.509	.554	.014
Charitable volunteering	.302	.512	.450	-.007
Gave seat	.545	.070	-.175	.150

Cut ahead in line	.549	.227	-.070	-.039
Helped take care of plants/pets	.245	.152	-.167	-.544
Carried items	.569	.100	-.349	.018
Gave directions	.497	.179	-.351	.149
Loaned an item	.446	.193	-.369	.199
Gave money to a homeless person	.511	.136	.166	-.024
Helped find a job	.408	-.445	.099	.088
Helped with housework	.517	-.364	.195	-.157
Lent an item	.453	-.541	.191	-.058
Talked to a depressed person	.503	-.263	.306	-.105
Gave blood	.046	-.081	.165	.779

Extraction Method: Principal Component Analysis.

a. 4 components extracted.

Rotated Component Matrix(a)

	Component			
	1	2	3	4
Gave money to charity	-.033	-.035	.772	-.035
Charitable volunteering	.108	-.001	.738	.020
Gave seat	.553	.202	.084	-.042
Cut ahead in line	.495	.158	.264	.141
Helped take care of	.184	.049	.066	.606

plants/pets				
Carried items	.646	.148	-.008	.129
Gave directions	.651	.032	.017	.008
Loaned an item	.640	-.021	-.003	-.040
Gave money to a homeless person	.309	.283	.359	.061
Helped find a job	.131	.582	-.097	-.129
Helped with housework	.118	.658	.061	.109
Lent an item	.047	.727	-.078	-.017
Talked to a depressed person	.087	.615	.198	.050
Gave blood	.107	.051	.062	-.790

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 5 iterations.

Component Transformation Matrix

Component	1	2	3	4
1	.725	.611	.302	.103
2	.292	-.689	.647	.147
3	-.574	.370	.701	-.208
4	.246	-.121	-.020	-.962

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser Normalization.

Table 1

Summary of Exploratory Factor Analysis Results using Varimax Rotation

Item	Factor loadings			
Volunteered for charity	.108	-.001	.738	.020
Gave money to charity	-.033	-.035	.772	-.035
Donated blood	.107	.051	.062	-.790
Talked to a depressed person	.087	.615	.198	.050
Helped someone with housework	.118	.658	.061	.109
Loaned someone money	.453	-.541	.191	-.058
Took care of someone's house or possessions while they were away	.245	.152	-.167	-.544
Helped someone find a job	.408	-.445	.099	.088
Gave directions	.497	.179	-.351	.149
Allowed to cut ahead in line	.549	.227	-.070	-.039
Gave money to a homeless person	.511	.136	.166	-.024
Gave up seat	.545	.070	-.175	.150
Carried someone's belongings	.569	.100	-.349	.018
Eigenvalues	2.70	1.40	1.19	1.04
% of variance	19.35	9.97	8.48	7.40

Note: Factor loadings over .40 appear in bold.