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Religiosity and the Belief in a Just World

by

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ABSTRACT

The present study attempted to account for previous contradictory findings with regard to the relationship between religiosity and the belief that the world is a just place. There were 252 participants who each completed a questionnaire containing both the manipulations of a 2 X 2 X 3 factorial experiment and a number of measures used for a correlational analysis. Part 1 found that varying the salience of religion influenced victim derogation (a common index of the belief in a just world) in high and low religious participants differently. Low religious participants only derogated an ill person relative to a healthy person when religion was not salient. High religious participants only derogated when religion was salient. It is argued that these findings are accounted for by the fact that the salience of religion evokes just world beliefs in the highly religious and benevolence in the weakly religious. This is qualified by the fact that the use of definitions of religiosity other than Christian Orthodoxy as well as dependent variables that controlled for the tendency to generally like others resulted in only a derogation effect overall, with no interactions with religiosity or the salience of religion. In Part two, we found no overall correlation between measures of religiosity and the belief in a just world. Problem solving style (with or without God), the tendency to see God and religion as care as opposed to justice oriented, and religious denomination all provided some rare instances in which religiosity and the belief in a just world correlated either

negatively or positively.   Generally, though, religiousness and just world beliefs were not significantly related.   It is concluded that overall quantifications of religiosity may be related to indices and measures of the belief in a just world only under specific circumstances.   Depending on the nature of an individual's religiousness, they may be either positively or negatively related. It may be that most often they simply are not related at all.

RELIGIOSITY AND THE BELIEF IN A JUST WORLD

> The relationship between goodness and happiness,
> between wickedness and punishment is so strong, that
> given one, the other is frequently assumed. Misfortune,
> sickness, accident are often taken as signs of badness
> and guilt. If 0 [a person] is unfortunate, then he has
> committed a sin.
>   - Fritz Heider (1958)

Since the mid-1960s, empirical attention has been given to the relationship between a person's fate, be it good or bad, and how he or she is subsequently perceived by others. Much of the work has centered around Melvin Lerner's (1965; 1980) "just world" hypothesis. This hypothesis has attempted to explain the apparently irrational tendency to laud the undeserving fortunate and denigrate innocent victims.

This thesis outlines Lerner's (e.g., 1980; Lerner & Miller, 1978; Lerner & Simmons, 1966) justice motivation theory and then specifically examines how one individual difference variable, religiosity, relates to an individual's belief in a just world. Following a summary of earlier research relating religiosity to justice motivation, a two part study is presented. The first part is an attempt to explain previous discrepancies in the experimental literature on the topic. The second is an attempt to explain previous discrepancies in the correlational literature.

Lerner (1980) has argued that people are often motivated by a need to assure themselves that they live in a just world, where the good are rewarded and the bad are punished. He maintains that the

belief in a just world may be based on generalizations from our past, experiences, such as seeing or being told of good deeds being rewarded and bad deeds punished. He also has suggested that the belief may be the result of how we are "wired." That is, we prefer cognitive simplicity and consistency and a "just world" makes things easier to understand. The third and possibly most interesting posited reason for this supposed belief in a just world is that it serves a defensive function. Injustice is frightening. People, it is argued, like to believe that they have some control over their outcomes. As Lerner puts it:

> People want to and have to believe they live
> in a just world so that they can go about their
> daily lives with a sense of trust, hope and
> confidence in their future. (1980, p.14)

There is presumably some not insignificant comfort to be had by believing that if you are good, good things will happen to you, while if you are bad, bad things will happen to you. Although a sense of control may be much desired in some respects, it may also have a negative side.

What happens when one confronts an injustice? Lerner (1980) holds that people use both rational and irrational strategies in dealing with such situations. Rational strategies include preventing the recurrence of the injustice and compensating the victim. For example one can correct an economic injustice experienced by some poor people by providing them with financial support. Also seen as rational by Lerner is the "acceptance of one's limitations." One sets priorities in the injustices that one personally can rectify.

One "does what one can," not expecting to personally have to right all wrongs.

One might correct the injustice and then be able to again believe that the world is just. But what happens when one can't correct the injustice? One of the irrational tactics which Lerner says we often adopt is denial-withdrawal. Says Lerner:

> This is a primitive device, but it works. All it requires is an intelligent selection of the information to which one is exposed...If you do by some mischance see a crime or a terrible accident, or meet someone who is blind or crippled, then get the hell out of there. Leave the scene physically, and hopefully, with the help of other diversions, the event will leave your mind.
> (1980, p.20)

Another "irrational" tactic is the reinterpretation of various aspects of an event so that an injustice is no longer perceived. One could reinterpret the outcome. For example: "Some systems of religious belief see virtue in suffering, and assure restitution in later life" (Lerner, 1980, p.21). The injustice disappears because of a belief in "ultimate justice." One could also reinterpret the cause of the injustice. A victim's fate could be attributed to something he or she did or failed to do. Related to this is the reinterpretation of the character of the victim. Sufferers are seen as inferior sorts of beings. While no readily perceivable action can be maintained as the source of their hardship, they nonetheless are believed to deserve their fate. They are "bad people", and bad things happen to bad people. One thus convinces oneself that no injustice has taken place by believing that the victim of an injustice deserved his or her fate.

Lerner also suggests that we are able to accept occasional injustices by believing in "ultimate justice" and believing that there are different "worlds." With regard to ultimate justice, we purportedly tell ourselves that injustices are minor setbacks and that "in the long run", justice will be served. The different worlds are different cultures and subcultures. If people in some part of the world are continually suffering, we might convince ourselves that they live in a world of victims, where injustice is the rule. In our world, though, justice prevails.

In sum, then, Lerner argues that we like to believe that we live in a just world. It allows us to anticipate and control the future. When we are confronted with an injustice, we may attempt to rectify the situation insofar as we are able. If we can't repair the injustice, and refuse to give up our belief in a just world, we might either deny or avoid the injustice, reinterpret the outcome or blame the victim's actions or character in order to maintain the belief. We can also rationalize injustice by believing that justice will ultimately prevail and by distinguishing between our just world and the unjust world of others.

While this belief may reflect a more general tendency to see the world as orderly, perhaps reflecting a "need for structure" construct, this remains speculative. The present investigation examines the belief in a just world in particular and leaves the question of its being a sub-category of a larger attitude or personality trait as a topic for future research.

MAJOR PARADIGMS AND FINDINGS

A number of experimental paradigms have been used to demonstrate the effects postulated above. They include experiments that examined the effect of randomly assigned reward, the observation and reading of accounts of innocent victims, and the avoidance of similar victimized others.

In an early study, Lerner (1965) examined how observers rated the performances of two people working at an anagram task after one had randomly been assigned a reward. He found that once those listening to the task workers knew who had been rewarded (given a sizeable amount of money), that person's performance was rated as better than that of the other participant. This was the case even though subjects were told at the outset that one participant would, by chance, be rewarded while the other would get nothing. Lerner argues that once the recipient of the reward was known, observers persuaded themselves that that person really did earn it after all. They imposed, in their minds, a just reward system that contradicted what they were told had happened. Another finding of this study was that when the less attractive of the anagram workers was rewarded (the workers were male, those listening were female), the performance of the whole group was devalued. It is argued that this is because it was seen as unjust. The observers would have felt justice had been served if the attractive worker had been rewarded. The relationship of physical attractiveness stereotyping to the belief in a just world has recently been examined by Dion and Dion (1987).

Lerner and Simmons (1966) studied observers' reactions to

innocent victims.   In their paradigm, one of the most commonly used to investigate the belief in a just world, observers watched a person engaging in a paired-associate learning task. The observed person was supposedly in a small room and the observers were watching on a television monitor in another room. The experiment ostensibly concerned the perception of emotional cues.   Observers saw the learning task participant receive what appeared to be "severe and painful electric shocks" when she made mistakes. There were six experimental conditions: Midpoint, in which participants expected a second session to follow; Reward, in which participants could vote to give the victim positive reinforcement in the next session; Reward Decision, which was like the reward condition only participants were not told of the outcome of the vote; End point, in which participants were told that the experiment was over; Past event, in which participants were told that the session had been videotaped in the past; and Martyr, in which the victim reluctantly agreed to be shocked so that the observers could receive their lab credit. In evaluating the learner after watching the task, participants gave more negative ratings to the shocked victim when they believed that they could not alter her fate (all but the reward condition) and they would see her suffer again in a second session (midpoint). The martyr received the most derogation. It was argued that this demonstrated that, in accordance with the just world hypothesis, outlined above, if one cannot compensate or avoid a victim, he or she will be derogated. To maintain the observer's belief in a just world, the victim's suffering is seen as, to some extent, deserved.

Possibly second in popularity to the "shock" paradigm are studies in which participants read about injustices (Lerner & Miller, 1978). In such experiments, participants typically read about someone who is the victim of a crime (Gold, Landerman & Bullock, 1977; Jones & Aronson, 1973) or disease (Gruman & Sloan, 1983). The protagonists in these vignettes are generally derogated or held significantly more responsible for their fates than are similar protagonists in control vignettes. In the Gruman and Sloan (1983) study, for example, it was found that characters who were ill were rated less positively in terms of personality traits (on value-laden bipolar adjective scales) than healthy characters. Again, this derogation is argued to occur to maintain a belief that the world is just. If something bad happened to the character (e.g., she or he is ill), it is because she or he deserved it.

Avoidance is another "irrational strategy" that has been posited for maintaining one's belief in a just world. The use of this strategy was demonstrated by Novak and Lerner (1968). While there is evidence that similar people are generally attracted to each other (e.g., Byrne, 1961) Novak and Lerner suggested that a suffering similar other is threatening to one's sense of security. While there is injustice in seeing an innocent victim generally, the attack on one's belief in a just world is all the greater, or at least more salient, if the victim is similar to oneself. Novak and Lerner had subjects take part in a study of impression formation in which they evaluated a partner based on written materials. The materials were in fact manipulated by the experimenters so that the partner was

either similar or dissimilar to the evaluator. Further, the partner to be evaluated was presented as either "normal" or emotionally disturbed. The participants then rated their partner's attractiveness and their willingness to interact with that person. When the partner was presented as "normal", there was a greater desire to interact with the similar than the dissimilar person. When the partner was presented as emotionally disturbed, however, the reverse was true. The similar partner was more avoided than the dissimilar partner. The suffering of a similar person is most threatening to one's sense of security and control, possibly because it is subsequently easier to imagine oneself in such an unjust situation. Avoiding the similar suffering victim is a means of maintaining one's belief in a just world, and thus one's belief that one's own fate can to some extent be controlled.

Lerner and his associates, then, have shown that recipients of randomly assigned rewards are perceived to have performed better on a task than those not rewarded (Lerner,1965), that innocent victims are sometimes derogated by observers (Gruman & Sloan, 1983; Lerner & Simmons, 1966) and that suffering similar others are avoided more than dissimilar suffering others (Novak & Lerner, 1968). All of these findings are in accordance with the just world hypothesis. Other possible interpretations of these phenomena will be discussed below in the "criticisms" section.

Lerner does not maintain that the belief that the world is a just place is universal. In his own words:

> Not all people believe that they live in a just world and probably not everyone cares whether the world is just or not. And there are probably some people who would prefer to believe that the world is a miserable jungle run by cynical forces, and that tragedy, pathos, and emptiness are the central themes of human existence.
> (Lerner, 1980, p.137)

This raises the issue of individual differences in justice motivation. Who believes in a just world?

Lerner and Elkinton (1970, cited in Lerner, 1980), using an interview technique, found that people who believed in "complete justice" were most likely to have less than a high school education, be members of the working class (as opposed to middle or upper class) and be adherents of fundamentalist religions. Upper class respondents were the most likely of the socio-economic groups to acknowledge injustice, usually among the underprivileged.

Rubin and Peplau (1973; 1975) developed a twenty item scale designed to measure an individual's belief in a just world. Sample items are "Good deeds often go unnoticed and unrewarded" (-) and "By and large, people deserve what they get" (+) Scores on this scale have been shown to correlate positively with such measures as: belief in an active God, a negative view of social activism, church or synagogue attendance (Rubin & Peplau, 1973); the perception of the status quo as desirable, political and economic conservatism, internal locus of control, authoritarianism, belief in the Protestant Ethic (Rubin & Peplau, 1975); the assigning of stiff prison sentences (Gerbasi & Zuckerman, 1975; Izzett, 1974); and Christian Orthodoxy

(Wagner & Hunsberger. 1984).   Belief in a just world has also been
shown to be associated with lower neuroticism and a lower belief in
socialism (Rim. 1983).

CRITICISMS

The   just   world   hypothesis   is   not without its critics. Some
criticisms of the Lerner and Simmons (1966) victim derogation type of
studies are that: (1) it is the result of the victim being perceived
as "a dummy" for letting her or - himself continue to be shocked
(Lerner; 1971);   (2) observing the shocking of a person is generally
an aversive experience that casts a dark mood over the observer. The
mood results in negative evaluations of everything, not just the
experimental-victim (Wagner & Hunsberger. 1984);   and (3) the victim
is derogated not to maintain the belief in a just world but to
alleviate the guilt of the observer who is doing nothing to help
(Cialdini. Kenrick. & Hoerjg. 1976; Lerner, 1980).

A troublesome criticism is that derogation is not based on the
violation of the observer's sense of justice, but rather on the
perception of the victim as someone of weak character. .The victim,
after all, allowed herself to be shocked repeatedly. Observers might
feel that anyone with an   ounce of integrity would tell the
experimenter that he or she wouldn't continue to participate. Lerner
(1980) counters that if this were the case, there should be
derogation if the victim, after suffering, received an unexpected
reward.   The person would still be perceived as a "sap" for having
gone through with the experiment. When participants received

unexpected rewards, however, no derogation took place (Lerner, 1971). Lerner argues that this is because observers felt that the monetary compensation had restored justice. It could be, though, that the lack of derogation is based on the victim not being perceived as a "sap" rather than the result of restored justice. The learner may have been perceived as being quite clever for having anticipated a monetary reward. This possibility remains to be investigated. When observers could switch the victim to a positive reinforcement condition for a second session (Lerner & Simmons, 1966) derogation was attenuated. This seems to be stronger support for the just world interpretation, as it seems less likely that the victim would be seen as clever for being able to anticipate a changing condition.

Along a similar line, Wagner and Hunsberger (1984) suggest that being an observer in the "shock" condition may simply be a depressing, upsetting experience. It could be that given the darker mood of the participants, everything evaluated would be seen in a more negative light. They cite literature, for example, which reports that photographs were rated as less attractive in a "drab or ugly" room than in a pleasant nicely furnished room (Maslow & Mintz, 1956). One's rating of observed victims might similarly be influenced by one's environment and subsequent mood. One's sense of justice, then, may not be violated, one may just feel bad. Lerner might argue that this can be discounted by the fact that when subjects are rewarded, no derogation takes place (Lerner, 1971; Lerner & Simmons, 1966). As well as restoring justice, though, reward may more fundamentally improve the observer's mood. While the

"dark mood" may be the result of a violated sense of justice, it does not seem that this must necessarily be the case. The mood could result from a more fundamental visceral or aesthetic revulsion. It could be a simple learned or innate response that wholly bypasses any cognitions regarding "justice". This possibility also remains to be investigated.

Possibly the strongest criticism of studies of the Lerner and Simmons (1966) ilk is the suggestion that victim derogation is not based on the belief in a just world, but on guilt-reduction. Observers feel guilty for not intervening to help the victim. They derogate the victim not to restore justice, but to justify their lack of action (Cialdini, Kenrick, and Hoerig, 1976). In their experiment, Cialdini et al. manipulated the complicity of the observer in the suffering of the observed person by altering instructions. In one condition, subjects were intended to be far less capable of helping the victim and far less responsible for the victim's fate. This was done by having the participants in the "high complicity" condition receive instructions based on those used by Lerner and Simmons (1966), stating that the learner and "Dr. Stewart" (who were being watched on closed circuit television) were down the hall. Whether the observers and the victim were part of the same experiment was left ambiguous. Low complicity participants were explicitly told that the experiment to be observed was taking place in another department in the university (education), had been going on for a long time and had only recently come to the attention of the psychology department. In addition, the instructions indicated that

the experimenters were rather unfamiliar with the experiment taking place in the education department --- they merely wanted to use yet another of a number of stimuli (including photographs, other people, etc.) that had been used for their own purposes. They found that victim devaluation was greatest when complicity was high. The evaluations of the observed person in the low complicity condition did not differ between the shock and control conditions. The shock and control conditions were significantly different for high complicity participants. There was unfortunately no reported manipulation check for complicity. Cialdini et al. (1976) argue that when participants are unambiguously informed that they are not the cause of the victim's suffering, there is no derogation effect. Their findings suggest that derogation is the result of observers feeling implicated in the fate of the victim.

Another experiment (Lerner, 1971) examined the "implication" of the observer in the victim's suffering. Some participants did not benefit from the martyr's suffering (they were apparently Sociology students who were not getting course credit for participation), and were thus not seen as being implicated in the victim's suffering (Lerner, 1980, p.70). They still derogated, and Lerner argues this demonstrates that victim devaluation is not based in guilt reduction. Clearly Lerner's manipulation of complicity is much weaker than that of Cialdini et al. Surely participants in the Lerner experiment might still be more inclined to feel guilty for not demanding that the experimenter stop running the experiment. Still, in light of these apparently contradictory findings, it appears that a

satisfactory test of the guilt-reduction hypothesis remains to be carried out.

A more general criticism has to do with the contention that we are generally inclined to help people and be sympathetic to victims Aderman. Brehm and Katz (1974) altered the instructions given to participants with the intention of manipulating empathy. They found that when "empathy" was cultivated. derogation of victims did not take place. In fact they maintained that, the Lerner and Simmons instructions actually inhibited a kindly response to the victim. One of Lerner's retorts to this is that they are not cultivating empathy (which he defines as "the vicarious arousal elicited by cues of another person's suffering" (Lerner. 1980)) but sympathy. Lerner points to experiments demonstrating increased arousal when viewing a victim (e.g., self-reports in Lerner & Simmons. 1966; galvanic skin response in Lerner, 1973). Lerner seems to define empathy as any sort of arousal derived from the observation of the victim, be it sympathetic or based in revulsion. He also argues that Aderman et al.'s findings might have been the result of demand characteristics. Participants in one condition were told to imagine themselves in the victim's position. It's quite plausible that this is little short of saying to them "Isn't this terribly unjust? You should feel sorry for that poor person." The victim may not have been derogated because the experimenter was virtually asking them not to derogate.

One finding related to empathy was that if the observer believed he or she could have been the next person in the victim's situation, the victim was not rated negatively on bipolar adjective scales

(Sorrentino & Boutilier, 1974).   Lerner simply responds to this by again saying that sympathy, not empathy, had been aroused.   Whatever the term chosen, it seems that sympathy or empathy may attenuate victim derogation. The essence of this criticism seems to be that the instructions in the Lerner and Simmons (1966) paradigm may obstruct real world validity. It is likely, though, that people do at least sometimes find themselves in real world situations with comparable "instructions," and do derogate victims.   If sympathy is aroused, perhaps they do not derogate. But as well as arguing that sympathy is natural and the Lerner and Simmons instructions obstruct a "normal" response (as Aderman, Brehm, & Katz (1974) wish to maintain) it is equally plausible to suggest that we normally derogate victims and only desist if we are explicitly requested to be empathetic.   Perhaps, in our personal hierarchies of motivation, our desire to be seen as "nice" is sometimes stronger than our desire to maintain a belief that the world is a just place.

A final criticism in the area concerns not the Lerner and Simmons (1966) paradigm, but the multitude of findings using Rubin and Peplau's (1975) just world scale (JWS).   It has been shown to be multidimensional.   That is, a number of factors emerge in factor analyses of the scale (Hyland & Dann, 1987; Wagner & Hunsberger, 1984).   This does not sit well with Lerner's apparent notion of the unidimensionality of the belief in a just world.   Wagner and Hunsberger (1984) found that the JWS had seven factors with eigenvalues greater than one following a principal axes factor analysis.   A varimax rotation of the seven factors indicated that 37%

of the explained variance was attributable to the largest factor. Hyland and Dann (1987) also · found seven factors with eigenvalues greater than one with their first "trial" principal components solution. Using the scree test (Cattell, 1952) they determined that four factors should be extracted. Their second principal factoring with iteration (PA2) and varimax rotation obtained a four factor solution which accounted for 38.7% of the variance. Their four identified factors were labelled as: (1) "Justness of authority," in which items made reference to another person or to an institution, such as the courts, parents or referees; (2) "the just world," which included general items about people getting what they deserved in the world; (3) "the deserving person," which reflected intrinsic deserving in people rather than deserving based on external factors; and (4) "the consequences of prudence," in which items indicate the belief that prudence will lead to a positive outcome. The first factor accounted for 42% of the extracted variance. Is the belief in a just world a multidimensional concept or is it a unidimensional attribute that the Rubin and Peplau scale may fail to measure adequately? Lerner's theorizing to date would seem to suggest the latter. The scale has also been reported to have weak psychometric properties. Wagner and Hunsberger (1984), for example, report a mean item intercorrelation of $r=.09$ and a Cronbach's alpha of .65. These findings raise questions about the just world scale's validity and reliability and thus cause us to question findings using the scale.

These criticisms acknowledged, it still seems that the Just World hypothesis is a plausible and possibly the most parsimonious

means of accounting for a number of experimental findings. While other reasons for some of the results have been posited, they remain to be convincingly demonstrated. Further, the Rubin and Peplau (1975) scale does seem to correlate with other variables (e.g., conservatism, negative view of social activism) in ways that are theoretically in line with predictions. For the time being, it may prove to be a useful, if imperfect, tool.

RELIGIOSITY AND THE BELIEF IN A JUST WORLD

Lerner (1980) suggests that people maintain a belief in a just world in order to make the world predictable. There is a desire for a sense of control, a sense that certain known actions and beliefs will bring about good outcomes while others will bring about bad outcomes. By believing that the world is just, people have a structured universe in which they have some control. The needs for meaning, control and cognitive structure have been posited as some of the bases of religious beliefs (Berger, 1967; Meadow & Kahoe, 1984; Spilka, Hood & Gorsuch, 1985). Berger (1967), for example, argues that an intolerable sense of anomie arises from believing that the universe is chaotic. One thus structures the universe with religion. It is evident that justice motivation and religious beliefs may share a common reason for their existence: the creation of a structured and predictable cognitive universe. We are assuming that a more structured religious universe will generally be perceived to be a more just universe. This seems in keeping with the notion that, to

the religious person. God is likely the reason for structure in the
universe, and God is probably perceived as just. From such logic.
one might predict that the more religious one is, the more one will
demonstrate a belief in a just world.

Pargament and Hahn (1986) maintain that in extremely trying
situations (e.g., severe medical problems) there is an attempt to
make attributions to God for causality. The suggestion is that when
all else fails, one maintains one's belief in a just world by saying
that what has happened is part of God's plan, which we cannot begin
to comprehend. God is believed to have a just reason for every
occurrence in the world.

One can reasonably argue, though, that religiousness will
relate to the belief in a just world in a number of ways. One's
religion might emphasize that God assures that the world is just.
Or, it might emphasize that it is unjust and we must comfort innocent
victims.   These two emphases lead to different predictions for the
relationship of religiosity and the belief in a just world.

Taking a social learning perspective, one religious person (say
an orthodox Christian) might have been imbued with doctrines and
ideals that overwhelmingly emphasize the equality of all persons in
the eyes of God. Those values may also have stressed the virtue of
comforting the suffering. If one is to imitate Christ, one is to
love those who are troubled and comfort victims. If this was the
emphasis of one's religious upbringing, one likely would not be
inclined to derogate victims.   On the other hand, another person
might have had a religious upbringing which emphasized other points.

Some religious groups, for example, attribute worldly success to God's reward for good behaviour or character. Similarly, worldly hardship may be seen as a punishment from God. With such an upbringing, an individual would probably be more likely to assume that if a person was in unenviable circumstances, it was his/her own fault. Such a religious person would theoretically be inclined to derogate victims. The prediction of social learning theory thus depends on the emphasis made in an individual's religious upbringing. What is crucial is the extent to which one emphasizes: (1) that religious people should love victims; vs. (2) that God will bless "righteous" people in this world, and damn the unrighteous. Religiousness might thus relate to either greater or lesser derogation of innocent victims. It is also not unreasonable to expect that some people had both or neither of these emphases, even if they did have a fairly religious upbringing.

EXPERIMENTAL STUDIES. There have seemingly only been two experimental studies of religiosity and the belief in a just world and, unfortunately, they yielded different results. Both studies (Sorrentino & Hardy, 1974; Wagner & Hunsberger, 1984) used the popular "shock" paradigm, first used by Lerner and Simmons (1966). In it participants view, on videotape, what is ostensibly a test of paired-associate learning. In one condition, the observed learner is simply told of his or her mistakes while in the other condition he or she receives what are apparently painful shocks every time a mistake is made. What is generally found is that the observers will derogate

the shocked person relative to the non-shocked person. Sorrentino and Hardy (1974), as well as Wagner and Hunsberger (1984), essentially used this paradigm while also measuring the observer's religiosity.

Sorrentino and Hardy (1974) found that while low religious participants derogated the observed suffering victim relative to the non-sufferer, high religious participants did not. Curiously, the ratings made by highly religious observers fell about halfway between the ratings made of the victims and non-victims by low religious observers. This contradicted Sorrentino and Hardy's hypothesis that the high religious participants would have a stronger belief in a just world and therefore derogate to a greater extent than the less religious. They argued, however, that this may not necessarily be at odds with the idea that there is a positive relation between religiosity and the belief in a just world. Rather, high and low religious subjects may have attended to different cues. They cite evidence that high authoritarians are less inclined than low authoritarians to be influenced by situational information (Centers, Schomer & Rodrigues, 1970; Mitchell & Byrne, 1972; Vidmar & Stirrett, 1974). They also note that the highly religious tend to be highly authoritarian (Altemeyer, 1981; Hunsberger, Lea, McKenzie, Pratt, & Pancer, 1988; Kirscht & Dillehay, 1967). Combining these two findings, they suggest that religious participants paid less attention to situational cues when evaluating the victim. As they put it:

> Although the religious person may have a greater belief in a just world, his insensitivity to situational information may mean an innocent victim's suffering is not as great a threat to this belief as it is for the less religious person, consequently he has less of a need to devalue the victim (Sorrentino & Hardy, 1974, p.381).

They thus tried to maintain the position that religiosity and the belief in a just world are positively related.

Wagner and Hunsberger (1984) found that religiosity made no difference in victim derogation. As in the Sorrentino and Hardy (1974) study, Wagner and Hunsberger had participants observe a person who was engaged in a paired associate learning task. In one condition the observed person was merely told that she had made mistakes while in another condition, she received what were apparently severe and painful electric shocks for incorrect responses. While they found that the "shock" group had a significantly lower opinion of the observed person than the control group, religiosity did not significantly account for the subsequent evaluation of the observed person. Participants had been divided into high and low religious groups based on their Christian Orthodoxy scores (Fullerton & Hunsberger, 1982). Both the high and low religious groups derogated the sufferer relative to the non-sufferer. In addition, Wagner and Hunsberger had a manipulation check for perceived suffering. As both the high and low religious participants perceived the victim to be suffering (and equally so), we have evidence against Sorrentino and Hardy's suggestion that high religious participants are less likely to attend to such situational cues as the pain experienced by the experimental victim.

Both Sorrentino and Hardy (1974) and Wagner and Hunsberger (1984) found significant positive correlations between measures of religiosity and measures of the belief in a just world. The correlations were $r(78)=.38$, $p<.01$ for Sorrentino and Hardy (1974) and $r(286)=.15$, $p<.01$ for Wagner and Hunsberger (1984). They also both expected that their experimental findings would fall in line with those correlations. While both pairs of researchers predicted greater derogation of victims by highly religious participants, one pair (Sorrentino & Hardy) found <u>less</u> derogation by highly religious participants and the other pair (Wagner & Hunsberger) found approximately equal derogation of victims by high and low religious groups.

There were a number of discrepancies between the two experiments which may account for the different findings in the two studies. (1) The video of the "learning session" varied. That is, Sorrentino and Hardy used different videotapes than Wagner and Hunsberger. It could be that something in the nature of the video (e.g., the reaction of the actor) may have accounted for the different findings. For example, if the victim in one study was perceived as experiencing more pain, observers might have correspondingly been more inclined to derogate that victim. It is also important to note that, in both studies, there were separate video tapes used for the "shock" and control conditions. Perhaps in one study, there were differences between the videos, other than the fate of the learner, which accounted for the reported results. If, for example, the "victim" were more sullen in the control video than the "shock" video, there

may have been no apparent derogation. The control victim would be disliked for her sulleness and the shock victim would be disliked because of the observer's belief in a just world.

(2) The measure of religiosity varied. Sorrentino and Hardy asked their participants to rate the extent to which they felt that religion was important in their everyday life on a 9 point scale. They also measured church attendance and the importance of salvation, though these measures were not ultimately used as measures of religiosity. Wagner and Hunsberger defined religiousness as a person's score on the Fullerton and Hunsberger (1982) Christian Orthodoxy scale.

(3) The dividing of the sample of participants into High Religious and Low Religious groups varied. Sorrentino and Hardy split their sample into two halves using a median split based on the "importance of religion" question. Wagner and Hunsberger only used the top and bottom thirds of their sample as defined by Christian Orthodoxy scores.

(4) Although participants in both experiments were run in groups, the size of the groups varied. Sorrentino and Hardy had groups of 8 to 14 subjects run at a time. Wagner and Hunsberger ran subjects in groups of 3 to 5. There has been some suggestion that people will not derogate the victim when run alone, but will derogate in groups (Aderman, Brehm, & Katz, 1974). Perhaps the size of group is also important. In large groups there might be peer pressure or a diffusion of responsibility which could play a role in one's

response.

(5) The selection of the victim differed. In Sorrentino and Hardy's study, the "victim" was seemingly chosen at random from those gathered to watch the experiment. Wagner and Hunsberger's subjects were presented with the person already in another room. The former experiment may have created a greater sense in participants that the victim could easily have been them. This in turn could have affected the evaluation of the victim.

(6) The salience of religion and the belief in a just world varied. In the Sorrentino and Hardy study, subjects were asked about their belief in a just world and religion (and a handful of other issues) just before viewing the "victim," though these were presented as two separate experiments. Wagner and Hunsberger measured religiosity and belief in a just world "about seven weeks" prior to having the subjects view the alleged learning experiment. The salience of religion (at least religious behaviours) has been shown to have an influence on people's attitudinal responses (Zanna, Olson & Fazio, 1981).

(7) Measures used to evaluate the learner (the main dependent variable) varied. Sorrentino and Hardy used the sum of scores on 10 highly evaluative bipolar adjectives. Wagner and Hunsberger used the 15 highly evaluative bipolar adjectives used by Lerner and his colleagues. Participants' ratings of the learner were subtracted from their ratings of themselves on the same scales in the Wagner and Hunsberger study only.

It seems reasonable to suggest that one or a number of the many differences between the two experiments could have accounted for the different results. Religious salience is believed to be of particular importance (Wagner & Hunsberger, 1984). The extent to which religion is brought to the forefront of one's thoughts (i.e., made salient) is believed to have a significant influence on the evaluation of victims by highly religious people. This will be discussed in detail below.

The experimental design described below will utilize the Gruman and Sloan (1983) illness/health paradigm to examine whether the salience of religion can explain the previous contradictory findings with regard to religiosity and the belief in a just world. The ill characters in the Gruman and Sloan paradigm are the "innocent victims." Thus the ill and healthy vignette characters in our study are the victims and non-victims, respectively.

NON-EXPERIMENTAL STUDIES. Survey studies of religiosity and the belief in a just world have also resulted in seemingly contradictory findings. Such studies, using Rubin and Peplau's just world scale (JWS) or asking people explicitly about their belief in a just world, have generally found a weak but significant positive correlation between the two variables (e.g. Rubin & Peplau, 1975; Sorrentino & Hardy, 1974; Wagner & Hunsberger, 1984). Wagner and Hunsberger (1984) found weak but significant correlations between the JWS and the Fullerton and Hunsberger (1982) Christian Orthodoxy (CO) scale, $r(295)=.15$, $p<.01$, as well as between the JWS and the Allport and

Ross (1967) intrinsic scale (a measure of the extent to which people earnestly adhere to their religion), $r(295)=.12$, $p<.05$. There was no significant correlation, however, between the JWS and the Allport and Ross (1967) extrinsic scale (a measure of the extent to which one uses religion as a means to attain other ends), $r(295)=.03$. Rim (1983) found no significant difference in the religiosity of individuals with a high vs. low belief in a just world. Participants in Rim's study, though, were from Israel, as opposed to the North American samples used in most other studies.

Zweigenhaft, Phillips, Adams, Morse and Horan (1985) examined correlations between religiosity and the belief in a just world separately for different religious denominations. They found that only Catholic respondents showed the previously reported positive correlation between religiosity (as measured by both church attendance, $r(27)=.38$, $p<.05$, and the rated importance of religion, $r(27)= .41$, $p<.05$) and the JWS. Baptists, $r(25)= -.45$, $p<.05$, and Quakers, $r(25)= -.43$, $p<.05$, showed some evidence of a negative relationship when religiosity was defined as the rated importance of religion and church attendance respectively. That is, the more religious they were, the less likely it was that they believed in a just world. Members of other Protestant denominations, Jews and agnostics showed no significant relationships between religiosity and the belief in a just world. There were about 20 respondents per religious denomination. Zweigenhaft et al. suggest that the degree of denominational organization and variations in the emphasis on individual conscience in the different traditions may have played a

role.   They felt that Catholicism was the most structured of the
denominations studied and Quakerism the least structured. They
argued that the finding that more religious Catholics tend to believe
the world is just and that more religious Baptists and Quakers tend
to believe the world is unjust is in keeping with the traditions and
theologies of those respective religions. For example, they contrast
the Quaker's "considerable emphasis on individual conscience" and the
Baptist's view of life on earth "as being unavoidably sinful and
unjust" with the strong emphasis on ritualism and centralized
religious control in the Catholic tradition. Catholicism's tradition
may be more inclined to involve trusting the church to look after
things, i.e., assure that the world is just. They conclude:

> The important variable was the manner in
> which people were religious, not simply
> whether (or "how much") people were
> religious. The relation between religiosity
> and the belief in a just world is more
> complex than earlier research suggests (p.333).

Another interesting finding with regard to this notion that the
manner in which people are religious is important was reported by
Rubin and Peplau (1975). They found that just world scores were
significantly positively correlated with the extent to which
individuals believed that God took an active role in the affairs of
humanity.   These two last findings seem to underline the dichotomy
drawn earlier between the two ways of being religious. On the one
hand, some emphasize that being religious means helping improve the
world. On the other hand, some people emphasize that God looks after
the world and ensures that it is just. The second part of the study

will investigate the possibility that this dichotomy can to some extent account for the different results found with self-report data.

SUMMARY OF REPORTED RELATIONSHIPS.   Religiosity and the belief in a just world have been reported to relate positively, negatively and not at all. Many self report studies suggest a modest positive correlation between the two traits. Zweigenhaft et al. (1985) only found this positive correlation for the Catholics in their sample. They found that Quakers and Baptists demonstrated a negative correlation between the measures, with the more religious having less of a belief in a just world.   Sorrentino and Hardy (1974) similarly found that highly religious participants would not derogate innocent victims while less religious participants would. This again suggests that the more religious one is, the less one believes in a just world (insofar as victim derogation reflects a belief in a just world). Finally, Wagner and Hunsberger's (1984) experiment and Rim (1983) report that religiosity did not relate to the belief in a just world at all. This is also the relationship Zweigenhaft et al. (1985) report for their Jewish, agnostic and most of their Protestant participants.

THE PRESENT STUDY

The present study has two major components. The first is based on a conceptual replication of the two experimental studies run to date. It is suggested that the salience of religion may at least partially account for previous findings. The second section is intended to apply a more fine-grained analysis to the

religiosity-belief in a just world relationship. It pursues some of
the suggestions of Zweigenhaft et al. (1985) with regard to how
particular aspects of one's religiosity may relate to one's belief in
a just world.

PART 1: ASSESSING PREVIOUS EXPERIMENTS. The first part of this
investigation focusses on the experimental literature. It draws on
operationalizations from both Sorrentino and Hardy (1974) and Wagner
and Hunsberger (1984) in that both previously used measures of
religiosity are included. In addition, the salience of religion is
manipulated. As suggested by Wagner and Hunsberger (1984), the
salience of religion offers a parsimonious explanation of the two
different findings previously reported. In the Sorrentino and Hardy
experiment, religion was made salient and the highly religious did
not derogate victims. It is possible that they were particularly
conscious of the fact that either: (1) It is in keeping with their
professed faith to "be nice to victims"; or (2) they should be a good
representative of their religion and not be seen to derogate the
victim. In the Wagner and Hunsberger study on the other hand,
religion was not at all salient, and it turned out that the highly
religious participants derogated victims just as much as the less
religious. The salience of religion may alter the response of highly
religious persons to the presentation of a suffering victim.

For reasons to be discussed shortly, the paradigm used in this
experiment will not be that used in the two previous studies.
Rather, it is a vignette study based on the paradigm used by Gruman
and Sloan (1983). As mentioned above, they found that the ill were

evaluated less positively than otherwise identical vignette characters who were healthy. The just world hypothesis accounts for this by maintaining that being confronted with an innocent victim is threatening. If the character could be afflicted with an illness such as pneumonia or cancer, then so could the person rating the character. We want to believe that we can control our outcomes (e.g., health) by our actions. We are upset by the possibility that a person will suffer for no reason. If we cannot remedy or avoid the injustice, we may maintain that the character suffers because of his/her incorrect actions or his/her poor character. If the evaluator is to maintain his or her belief in a just world, then the victim must be seen as a "bad person" who deserves his or her fate.

Unless previously reported findings have been the result of something other than the belief in a just world (i.e., something particular to the Lerner & Simmons paradigm), we will likely find results comparable to those found with the "shock" paradigm by Sorrentino and Hardy (1974) and Wagner and Hunsberger (1984). By means of a conceptual rather than operational replication, we may be able to see if the previously gathered findings are artifacts of some extraneous aspect of the Lerner and Simmons (1966) operationalizations. As mentioned previously, there have been suggestions that victim derogation may be the result of guilt-reduction rather than justice motivation.

There are also ethical concerns about the use of the "shock" paradigm. Lerner (1980) reports that observers are typically both visibly upset and angry with the experimenter for subjecting the

"victim" to painful shocks. It is felt that deliberately upsetting participants and having the experimenter perceived as the source of cruelty and injustice is not desirable. While the present study is intended to threaten participants to some extent, in that it is expected to threaten their belief in a just world, it is not expected to be as upsetting as watching someone receive "severe and painful" electric shocks.

The study utilizes a 2 X 2 (X) 3 factorial design. The independent variables are Religiosity (High/Low), Salience of Religion (High/Low), and Health Condition (Healthy/Pneumonia/Cancer).

HYPOTHESES. The measure of religiosity used, which differed between the Sorrentino and Hardy (1974) and Wagner and Hunsberger (1984) studies, is not expected to result in any differences in the findings. This is because it is expected that the two measures of religiosity will be very highly correlated. Nonetheless, analyses will be run for each definition of religiosity.

It is predicted that the salience manipulation will generate results comparable to those found in both previous experimental studies of religiosity and the belief in a just world. Specifically:

(1) When the salience of religion is low, participants will rate the ill characters less positively than the healthy character. That is, when only "low salience" participants are included in an analysis of variance, there will be a significant effect of health condition. This will be comparable to the Wagner and Hunsberger (1984) findings, insofar as the two paradigms can be compared.

(2) When the salience of religion is high,

(a) low religious participants will rate the ill characters less positively than the healthy character. A one-way ANOVA on this subgroup will yield a significant effect of the health condition.

(b) High religious participants will rate the ill and healthy characters equally.

This will be comparable to the Sorrentino and Hardy (1974) findings. For the high salience group, then, a religiosity by health interaction is predicted.

Overall, a Salience $\times$ Religiosity $\times$ Health interaction is predicted, such that the ill characters will be rated less positively than the healthy vignette character in all but the high salience, high religiosity group. For that group, health condition is not expected to have an effect on the evaluation of the vignette character. The above predictions are expected to hold whether the dependent variable is the participant's raw evaluation score of the vignette character (the sum of the ratings on the adjective scales) or the adjusted rating score (where the score for the average university student is subtracted from the score for the vignette character).

PART 2: ASSESSING PREVIOUS CORRELATIONAL STUDIES.   This correlational component of the study examines how self-reported religiosity relates to self-reported belief in a just world. Though

some research has revealed a weak but significant positive
correlation between religiosity and the- belief in a just world.
Zweigenhaft et al. (1985) have found evidence that the relationship
between the two beliefs is much more complicated than had previously
been assumed. Specifically, the manner in which an individual is
religious was suggested to affect how varying religiosity relates to
the belief in a just world.

In many ways, the present survey is an attempted replication of
the Zweigenhaft et al. research, although it was not possible to
include Quakers in this study. Respondents were asked to give their
belief in a just world, both based on Rubin and Peplau's JWS and two
questions on nine-point Likert type scales. They were also to
indicate their religious denomination and respond to a number of
measures designed to quantify their religiosity. In addition, there
are a number of extensions of the Zweigenhaft et al. study. The
primary extension _ involves the person's perception of God and
religion as concerned with assuring justice as/opposed to giving
comfort. This is an attempt to distinguish between people who see
God and religion primarily as justice oriented and wrathful and those
who see God and religion as primarily concerned with being loving and
supportive. There has been previous suggestion of such a distinction
in God concepts (Gorsuch, 1968, cited in Spilka, Hood & Gorsuch,
1985). If one sees God and religion as primarily concerned with
justice, assuming that God is perceived to control the world, we
would expect increased religiosity to involve a corresponding
increase in the belief that the world is just. If, on the other

hand. religiosity is seen as primarily concerned with caring. we do not have a link between religiosity and the belief that the suffering are being punished. Our caring and God's caring for victims would seem to reflect a sense that they are in fact innocent sufferers, not foul people who are rightfully being punished. In fact, increased religiosity would likely lead to less derogation of innocent victims. We might thus expect those who see God and religion as care-oriented to show a negative correlation between religiosity and the belief in a just world. The more religious they become, the less likely it is that they will derogate victims or show other signs of a belief in a just world.

Respondents will also be asked to indicate the extent to which they rely on themselves vs. God in problem solving situations (Pargament, Grevengoed, Kennel, Newman, Hathaway & Jones, 1988). This distinction stems from Rubin and Peplau's (1973) positive correlation between the belief in an active God and the belief in a just world. It is also intended to examine Zweigenhaft et al.'s suggestion that those who rely on individual conscience (e.g., Quakers) tend to show a negative relationship between religiosity and the belief in a just world while those who might be more inclined to .expect the church as an organization to deal with problems (e.g., Roman Catholics) tend to have a positive relationship between religiosity and the belief in a just world. Although the belief in a just world has been shown to correlate positively with internal locus of control (Rubin & Peplau, 1975). it is believed that in the religious domain, the tendency to solve one's problems on one's own

(rather than in collaboration with God or deferring to God) will correlate negatively with the belief in a just world. Similarly, the tendency to rely on God in problem solving is expected to correlate positively with the belief in a just world. This would seem to follow from the logic presented by Zweigenhaft et al. (1985). They suggested that the sense that the church and God will look after things accounted for their positive correlation between religiosity and JWS scores for Roman Catholics. They also suggested that the notion that the individual must make the world a better place (i.e., take the initiative in solving the world's problems) accounted for their negative correlation between religiosity and JWS scores for Baptists and Quakers.

It is anticipated that the above two measures (Care/Justice and Self/Collaborative/Deferring problem solving) may be important in understanding previously reported denominational differences in the religiosity/just world relationship.

The second part of the study thus uses refined measures of religiosity in order to attempt to determine which aspects of religiousness are predominantly responsible for the previously reported findings, including denominational differences.

HYPOTHESES.

(1) For the scales measuring the three Pargament et al. problem solving styles.

(a) the tendency to solve problems alone (Self) or in conjunction with God (Collaborative) will correlate negatively with scores on the just world scale.

(b) The tendency to defer to God (Defer) for problem resolution will correlate positively with Just World scores.

(c) For those who tend to solve problems alone or with God (above the sample median on either of the Self or Collaborative Problem solving scales) religiosity will correlate negatively with just world scores.

(d) For those who defer to God to solve problems (above the median on the Defer scale), religiosity will correlate positively with just world scores.

(2) For the God and religion as care vs. justice distinction, participants will be divided into four groups based on median splits on each of the care and justice questions. Predictions are made for two of the groups. Separate analyses will be run for the God and religion questions.

(a) if participants tend to see God and religion as highly care oriented (above median), but not highly justice oriented (below the median), religiosity will correlate negatively with just world scores.

(b) If participants see God and religion as highly justice oriented (above the median), but not highly care oriented (below median), religiosity will correlate positively with just world scores.

(3) The relationship of religiosity to just world scores for different denominations will be comparable to those reported by Zweigenhaft et al. That is, there will be a positive

correlation between the two variables for Catholics, and a negative correlation for Quakers and Baptists.

In sum, this part of the study attempts to explain previously reported denominational differences. It attempts to distinguish between those who emphasize God and/or Religion as justice vs. care oriented and those who solve their problems on their own or defer to God for problem resolution. It is anticipated that these distinctions may be important with regard to the religiosity / just world correlations of different religious groups.

METHOD

Subjects. 252 Wilfrid Laurier University undergraduate students (98 males, 145 females, 9 who did not give their gender) completed the questionnaire booklet which contained both parts of the study. All of the participants completed the survey during regular class time and were told that they were under no obligation to participate in the study. When divided by present religious affiliation, there were 55 Catholic, 38 United Church of Canada, 33 "Personal Religion," 31 Agnostic, 19 Anglican, 17 "Protestant," 12 Presbyterian, 11 Baptist, 11 Atheist, 9 "Other," 5 Lutheran, 3 Mennonite, 2 Pentecostal, 2 Greek Orthodox and 1 Jewish participants. The remaining 3 participants did not indicate their religious affiliation. Participants who indicated that they were raised in a non-Christian religion were not included in the analyses as it was felt that the Christian Orthodoxy scale (Fullerton & Hunsberger, 1982) would be a misleading index of religiosity for them. This resulted in nine participants not being included in the analysis, leaving a total of 243 eligible participants.

Design: The experimental portion of this study employed a 2 x 2 x 3 factorial design. The independent variables were religiosity (High/Low), salience of religion (High/Low) and health condition (Healthy/Pneumonia/Cancer). The manipulations were contained in questionnaires which varied as described below. The measures making up the second, correlational, portion of the study were also contained in the questionnaires and followed the experimental

measures.

    <u>Materials</u>:   Each participant received a questionnaire booklet containing the following (a sample questionnaire is contained in Appendix A):

    (1) A section in which participants were asked to rate the "average university student" on 18 nine-point value-laden bipolar adjective measures (p.2, Appendix A). The measures were the 15 used by Wagner and Hunsberger (1984) plus three others mentioned in Sorrentino and Hardy (1974).   Some   examples   are: rude-courteous. friendly-unfriendly, bossy-easygoing. This measure is included, as has been done in a number of victim derogation studies, in order to control for differences in how different groups (e.g., high and low religiosity) view people generally.

    (2) Another section contained a description of a character (p.6, Appendix A). The vignette read as follows:

> The following information was obtained from the standard
> questionnaire given to all students wishing to see the
> health centre physician at a major Canadian university:
>
>   Mark S. is a 19 year old English major. He is one of
> 3 children from a medium-sized town. He is an average
> student, doing well in some of his courses and not so well
> in others. He is uncertain about what he wants to do
> after graduation. Last summer, he worked at a camp as a
> counselor. He enjoys swimming, reading mystery stories.
> movies, TV, and dancing. He has 2 or 3 close friends
> and although he does date, he has no steady girlfriend.

The final paragraph of the vignette was varied as follows:

Healthy condition:

> "Mark was at the health centre for a required annual
> check-up and was found to be in good health."

Pneumonia condition:

> "Mark had been feeling very unwell for about four days.
> After a series of tests. he was found to have a very
> serious case of pneumonia."

Cancer condition:

> "Mark had been feeling very unwell for about four days.
> After a series of tests, he was found to have a malignant
> tumor. He was told that there was no possibility of
> operating to remove the cancer."

The vignettes are taken from Gruman and Sloan (1983).

(3) After reading the vignette. participants were asked to rate the character described on scales identical to those used to evaluate the average university student (p.7. App. A):

(4) As well as rating the vignette character on a series of bi-polar adjectives. participants were asked to rate. on nine-point scales, a number of other possible indices of a belief in a just world. These included measures of avoidance (desire to meet) and attributed responsibility. As manipulation checks, participants were also asked at this point to rate the extent to which the character was perceived to be ill and the extent to which that illness (or health) was perceived to be unjust (p.8, App.A).

(5) Fullerton and Hunsberger's (1982) 24 item Christian Orthodoxy (CO) scale was included (pp. 3-4, #s 2-25, App. A).

(6) A page then requested present and background religious affiliation, religious service attendance. the importance of religion in everyday life; the importance of salvation and a self-rating of religiosity (p.5, App.A).

The above measures were used in the experimental part of the

study.   The specific operationalizations were as follows.

Religiosity was measured by means of the Fullerton and Hunsberger (1982) CO scale, the "importance of salvation" and "importance of religion" questions used in the Sorrentino and Hardy (1974) study, the self-rating of religiosity and the self-report of religious service attendance. High and low religiosity were defined by a median split on each of these measures. Separate analyses of variance were run for each of the operationalizations, although Christian Orthodoxy was the primary measure of religiosity.

The salience of religion was manipulated by having participants complete the religious questions (Christian Orthodoxy scale and the page of other religiosity measures) either before (high salience) or after (low salience) reading the vignette and rating the character.

The health condition was operationalized by manipulating the stimulus story as described above.

The measures for the correlational portion of this investigation always followed the above sections. As well as using some of the measures described above, a number of other measures were included, as follows:

(7) Rubin and Peplau's (1975) 20 item just world scale (JWS) (pp.9-10, #s 2-21, App. A).

(8) Pargament et al.'s (1988) problem solving style measures (pp. 11-12, App. A).

(9) Respondents also were asked to respond to Sorrentino and Hardy's (1974) belief in a just world question. Because that question was believed to be rather vague, a more detailed question,

which was intended to tap the same underlying concept, was also included (p.10, #s 27-28,App. A).

(10) Participants were asked to indicate the extent to which they felt that God and religion were concerned with justice and care by indicating their degree of agreement with each of the following four questions (p.10, App. A). Responses ranged from "Strongly Agree" (+3) to "Strongly Disagree" (-3).

- God rewards good people and punishes bad people. (God Just)

- My religion very much emphasizes that good people
  are rewarded and bad people are punished. (Religion Just)

- God cares for and comforts those who suffer.   (God Care)

- My religion very much emphasizes that those who
  suffer should be cared for and comforted. (Religion Care)

(11) Finally, the surveys contained a request for the age, sex, year in university and major of each participant (p.12, App. A).

Procedure: Participants each received a twelve or thirteen page questionnaire (depending upon experimental condition) which they completed during regular class time. The survey took twenty to thirty minutes to finish. They were told that the study involved attitudes and impression formation. The verbal instructions are contained in Appendix D. Once participants were done, they were carefully debriefed as to the nature of the experiment. The verbal debriefing is contained in Appendix E.

RESULTS

All analyses were conducted using the SPSSX (1986) computer statistics package.

Part 1: Experimental Findings.

Manipulation Checks. The vignette character, Mark, was perceived as being significantly more ill when participants were told that he had either pneumonia or cancer than when he was described as being in good health, $F(2,236)= 234.64$, $p<.0001$. The mean rated illness on a nine point scale was 2.70 for the healthy group, 6.48 for the pneumonia group and 7.26 for the cancer group. Fisher's least significant difference (LSD) post-hoc test indicated that all of the means were significantly different from each other.

The extent to which the vignette was perceived as upsetting varied by health condition (healthy: 1.74, pneumonia: 2.72, cancer: 5.42, $F(2,219) = 90.50$, $p<.001$). It also varied by religiosity. High religiosity participants found the vignettes, on average, to be slightly more upsetting (M = 3.53) than did the low religiosity participants (M = 2.98), $F(1,219) = 5.51$, $p<.05$.

The order in which religiosity and just world scales were presented did not affect participants' responses to those scales. It was predicted that responding to religious questions beforehand would sometimes influence the evaluation of the vignette character. There was some concern that the reverse would be true; that rating Mark prior to completing the religiosity measures may have influenced the subsequent religiosity score. One way analyses of variance, however,

showed no significant effect of "salience" (questionnaire order) on scores on the Christian Orthodoxy (CO), just world, importance of religion, religious service attendance, importance of salvation, self-rating of religiosity, or any of the three Pargament et al. (1988) problem solving measures.

The measures used to operationalize religiosity by Sorrentino and Hardy (1974) (the importance of religion in everyday life question) and by Wagner and Hunsberger (1984) (the CO scale) correlated at $r(235)=.74$, $p<.001$. Intercorrelations among CO, the importance of religion in everyday life, the importance of salvation and self-rated religiosity were all at least $r=.74$. Religious service attendance correlated with the other four indices of religiosity at $r=.62$ or above, $p<.001$.

Treatment of Data. The six survey types (based on the two salience and the three health groups) were each divided into two CO groups (High and Low) based on a median split using the overall Christian Orthodoxy median of 130. This resulted in different Ns for the 12 experimental cells, ranging from 13 to 26. When participants were divided into high and low CO groups based on median splits within each of the six survey types, the cell Ns were almost perfectly balanced, but another problem arose. An analysis of variance run on the cells with CO as the dependent variable revealed not only an effect of Christian Orthodoxy (as expected), but also interactions with the other variables. While the analyses reported here use the original unbalanced cells (some analyses used similar overall median splits based on religiosity measures other than CO),

analyses on balanced experimental cells were also carried out as a check on the statistically more questionable analyses with unbalanced cells. The design was balanced by randomly discarding data from a given treatment group until each of the twelve cells contained precisely 13 participants.

Three-way factorial analyses of variance were run for both the raw ratings of "Mark" (the sum of the 18 highly value-laden bi-polar adjective scales) and the adjusted ratings (the ratings of the average university student were subtracted from the ratings of Mark). ANOVAs on specific subsamples were used to investigate the hypotheses.

Three-way Anovas. Health condition (i.e., which vignette was read) had a significant effect on the "raw" evaluation of the vignette character and the "adjusted" evaluation of the vignette character, which took into account the participant's rating of "the average university student." As reported later in Tables 5 and 6, the health manipulation significantly affected the evaluation of the character in almost every overall analysis conducted. For the primary analyses (using the original cells and CO as the operationalization of religiosity) the mean ratings of Mark (the character) were 115.8 for the healthy group, 110.1 for the pneumonia group and 106.9 for the cancer group, $F(2,221)= 7.12$, $p<.001$. Fisher's LSD test revealed that the healthy group was significantly different from both the pneumonia and cancer groups ($p<.05$), but the pneumonia and cancer groups did not differ from each other. The cell means for this analysis are given in Table 1, and the results of the

ANOVA are shown in Table 2. The mean adjusted rating of Mark for the healthy group was 9.64. The mean for the pneumonia group was 4.45 and for the cancer group, 2.51, $F(2,217) = 4.45$, $p < .01$. Fisher's LSD revealed that again, the healthy character was rated more positively than the ill characters, but there was no significant difference between the ratings of the character with pneumonia, as opposed to the character with cancer.

Religiosity had a significant influence on the evaluation of the vignette character in a number of instances. While it did not affect the adjusted rating of the character, in which the rating of the average university student is subtracted from the raw rating of the vignette character (see Table 6), CO and religious service attendance did have an influence on the raw ratings. The mean evaluation for the high CO group (above the median of 130 on a scale ranging from 24 to 168) was 113.8; the low CO mean was 108.5, $F(1,221) = 6.99$, $p < .01$. Those above the median on self-reported religious service attendance also had a higher mean evaluation of the character $(M = 114.2)$ than those below the median $(M = 108.9)$, $F(1,226) = 7.99$, $p < .01$. The high CO participants also evaluated the average university student more positively $(M = 107.7)$ than did the less religious $(M = 102.8)$, $F(1,229) = 7.12$, $p < .01$.

There was a significant three-way interaction of religiosity group, salience of religion and health for the raw ratings of the character using Christian Orthodoxy as the definition of religiosity, $F(2,221) = 3.60$, $p < .05$. The interaction is shown in Figure 1.

The cell means and ANOVA summary table for the evaluations of

the vignette character, with CO as the measure of religiosity, are contained in Tables 1 and 2 respectively. The comparable results for the adjusted evaluation (ratings of the character less the ratings of the average university student) are contained in Tables 3 and 4. Tables 5 and 6 contain a summary of the F values for analyses with different operationalizations of religiosity. The cell mean and ANOVA tables using balanced cells and the Sorrentino and Hardy definition of religiosity are presented in Appendix C.

Hypotheses. With low salience of religion, low religiosity participants, there was the predicted effect of "health" group on the raw ratings of the vignette character, $F_{(2,48)} = 5.54$, $p < .01$. A one-way analysis of variance on this subgroup, using the adjusted rating as the dependent measure, did not find a significant effect of the health manipulation, $F_{(2,48)} = 0.77$, $p > .4$. For the low salience of religion, high religiosity group, the raw ratings of the vignette characters did not differ by health condition, $F_{(2,60)} = 0.23$, $p > .5$. A one-way analysis of variance on this subsample's adjusted rating scores also found no significant effect of the health of the vignette character, $F_{(2,58)} = 0.60$, $p > .5$. For the low salience of religion participants overall (hypothesis 1), the health manipulation was not significant. This was the case for both the raw ratings of Mark, $F_{(2,108)} = 2.09$, $p > .1$, and the adjusted ratings, $F_{(2,106)} = 1.18$, $p > .3$.

For the high salience, low religiosity group (hypothesis 2a), a

FIGURE 1. Ratings of Character

High Salience of Religion
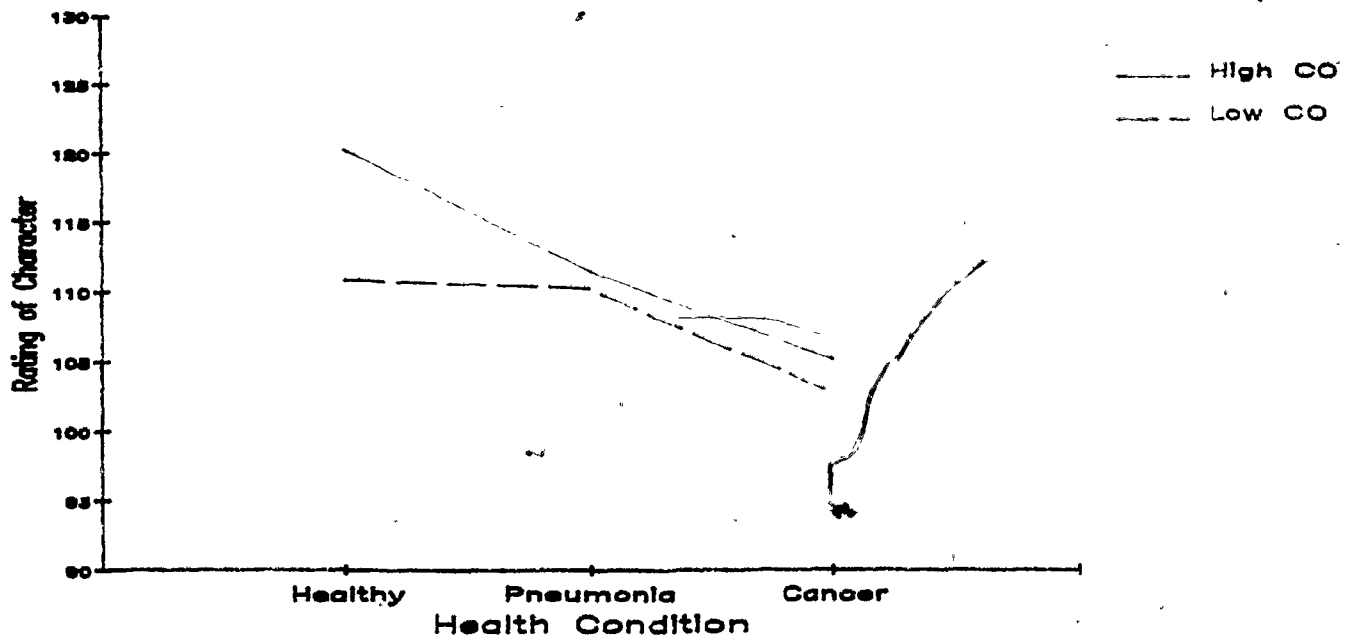
Low Salience of Religion
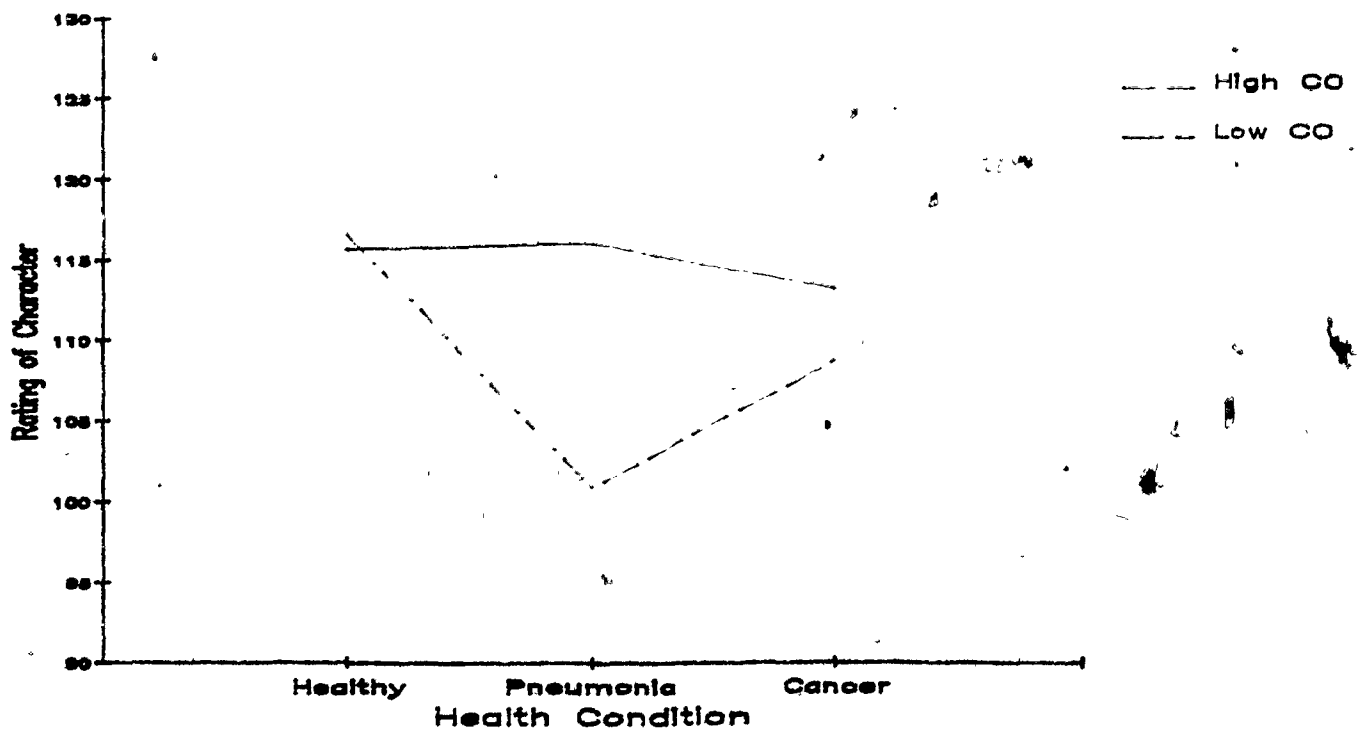
Table 1

Mean Ratings of Vignette Character

(RELIGIOSITY = CHRISTIAN ORTHODOXY (CO))

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	120.3 [SD=13.6] (n=19)	111.5 [SD=11.9] (n=13)	105.1 [SD=11.3] (n=20)
Low Religiosity	110.8 [SD=14.8] (n=20)	110.2 [SD=13.4] (n=26)	102.7 [SD=15.8] (n=21)

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	115.7 [SD=13.4] (n=24)	116.1 [SD=16.4] (n=21)	113.2 [SD=13.2] (n=18)
Low Religiosity	116.5 [SD=12.1] (n=17)	100.9 [SD=13.3] (n=15)	108.8 [SD=14.1] (n=19)

NOTE.-- Higher scores indicate a more positive rating.

Table 2

ANOVA Summary Table for

Vignette Character Ratings

(RELIGIOSITY ≠ CO)

Source	df	Mean Square	F
Salience of Religion (S)	1	182.2	0.96
Religiosity (R)	1	1329.3	6.99 **
Health Condition (H)	2	1353.5	7.12 **
S X R	1	27.9	0.15
S X H	2	492.1	2.59
R X H	2	126.7	0.67
S X R X H	2	684.0	3.60 *
Error	221	190.2	

* -- $p < .05$

** -- $p < .01$

Table 3.

Mean Adjusted Ratings of Vignette Character

(RELIGIOSITY = CO)

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	11.47 [SD=14.05] (n=19)	4.54 [SD=13.8] (n=13)	1.95 [SD=14.6] (n=19)
Low Religiosity	11.00 [SD=16.1] (n=19)	3.54 [SD=15.4] (n=26)	3.57 [SD=13.5] (n=21)

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	8.13 [SD=16.2] (n=24)	7.26 [SD=12.8] (n=19)	3.33 [SD=14.0] (n=18)
Low Religiosity	8.59 [SD=10.5] (n=17)	4.40 [SD=14.6] (n=15)	3.47 [SD=13.7] (n=19)

NOTE. -- Higher scores indicate a more positive evaluation.

Table 4.

ANOVA Summary Table for Adjusted Character Ratings.

(RELIGIOSITY = CQ)

Source	df	Mean Square	F
Salience of Religion (S)	1	1.53	0.01
Religiosity (R)	1	6.95	0.03
Health Condition (H)	2	908.69	4.45 *
S X R	1	7.93	0.04
S X H	2	112.11	0.55
R X H	2	37.13	0.18
S X R X H	2	10.85	0.05
Error	217	204.40	

* -- $p < .05$

Table 5.

Summary of F Values of All Manipulations

for Different Operationalizations

of Religiosity (DV: Raw Rating)

Religiosity Measure	H	R	S	HxR	HxS	RxS	HxRxS
Christian Orthodoxy	7.1**	7.0**	1.0	0.7	2.6	0.1	3.6*
Christian Orth. (13/cell)	6.4**	15.8**	1.7	0.6	0.8	0.6	4.7**
Importance of Religion	8.1**	1.0	1.6	2.3	2.3	0.2	2.3
Importance of Salvation	8.1**	1.4	1.4	0.4	2.0	1.4	1.0
Self-Rated Religiosity	8.2**	3.9*	1.5	0.4	2.1	0.2	0.7
Self-Reported Service Attendance	8.4**	8.0**	1.5	1.8	1.8	0.5	1.4

*   ----- $p < .05$

**   ----- $p < .01$

H : Health Manipulation
R : Religiosity Manipulation
S : Salience of Religion Manipulation

Table 6.

Summary of F Values of All Manipulations

for Different Operationalizations

of Religiosity (DV: ADJUSTED RATING)

Religiosity Measure	H	R	S	HxR	HxS	RxS	HxRxS
Christian Orthodoxy	4.4*	0.0	0.0	0.2	0.5	0.0	0.0
Christian Orth. (13/cell)	6.4**	0.7	0.5	0.2	1.2	0.1	0.1
Importance of Religion	5.0**	0.9	0.0	0.9	0.7	0.0	0.2
Importance of Salvation	5.1**	0.3	0.0	0.1	0.9	0.4	0.1
Self-Rated Religiosity	5.1**	0.1	0.0	0.1	0.9	0.1	0.4
Self-Reported Service Attendance	5.2**	1.9	0.0	1.4	0.7	1.1	0.1

* ----- $p < .05$

** ----- $p < .01$

H : Health Manipulation
R : Religiosity Manipulation
S : Salience of Religion Manipulation

one-way analysis of variance indicated that the "health" groups did not differ in their ratings of the vignette character, $F(2.64) = 2.03, p > .1$, or in their adjusted ratings of the vignette character, $F(2.63) = 1.66, p > .1$. The high salience, high religiosity subgroup (hypothesis 2b) did show a significant effect of health group on their evaluation of the character, $F(2.49) = 7.51, p < .002$. The adjusted ratings of this subgroup were not significantly different, $F(2.48) = 2.25, p > .1$.

Other Dependent Measures. The health and religiosity manipulations affected a number of other dependent variables, all of which were measured on nine-point scales.

The more highly religious participants were slightly more interested in meeting Mark (the vignette character) $(M = 5.23)$ than was the low religious group $(M = 4.75)$, $F(1.219) = 4.35, p < .05$.

Assigned responsibility for health or illness differed by health group. The healthy character was seen as fairly responsible for his health $(M = 6.57)$ while the pneumonia patient $(M = 4.54)$ and cancer victim $(M = 2.42)$ were seen as less responsible for their illnesses, $F(2.219) = 95.03, p < .001$.

Health condition influenced the perceived preventability of pneumonia. It was seen as least preventable by those who evaluated the character who had pneumonia $(M = 5.58)$. Those who read about the cancer victim $(M = 6.39)$ and those who read about the healthy character $(M = 6.93)$ felt that it was more preventable, $F(2.219) = 10.63, p < .001$.

Cancer was also, on average, seen as more preventable by those

who read about someone who was healthy (M = 4.10) than by those who read about someone who had either pneumonia (M = 3.35) or cancer (M = 3.51), $F(2,219) = 3.59$, $p < .05$.

As mentioned in the manipulation checks, participants reading about ill vignette characters reported being more upset than those reading about the healthy character. Along the same lines, the manipulations of health condition and religiosity also had significant effects on the extent to which the participants indicated that they would rather not have read the vignette they were assigned. The more serious the illness, the greater the indication that avoiding the vignette would have been desirable (healthy: 1.61, pneumonia: 2.55, cancer: 3.16), $F(2,219) = 15.94$, $p < .001$. High religiosity participants were more inclined to say that they would have liked to have avoided the vignette (M = 2.78) than were the low religiosity participants (M = 2.06), $F(1,219) = 11.41$, $p = .001$.

Participants reported that they felt more similar to the healthy vignette character (M = 5.09) than the vignette character with pneumonia (M = 4.43) or the character with cancer (M = 3.94), $F(2,219) = 4.78$, $p < .01$.

Of the three questions asked only of the participants who rated an ill character, one effect proved significant. The character's having cancer was seen as more unjust (6.72) than the character's having pneumonia (5.06), $F(1,145) = 30.29$, $p < .001$.

The influences of the manipulations on these secondary dependent variables are given in Table 7.

Table 7.

Summary of F Values of All Manipulations

on Various Dependent Measures

(RELIGIOSITY = CO)

Dependent Variable	H	R	S	HxR	HxS	RxS	HxRxS
Rating of Character	7.1**	7.Q**	1.0	0.7	2.6	0.1	3.6*
Adjusted Rating of Character	4.4*	0.0	0.0	0.2	0.5	0.0	0.5
Desire to meet Character	0.6	4.4*	0.5	1.3	0.1	0.8	1.1
Responsibility of Character for health	95.0**	0.1	0.0	0.3	0.5	0.5	1.7
Preventability of Pneumonia	10.6**	0.0	0.5	1.1	0.5	0.3	0.5
Preventability of Cancer	3.6*	3.1	0.1	1.0	0.2	2.2	1.9
Vignette upsetting	90.5**	5.5*	0.2	1.3	0.0	1.0	0.6
Would rather have avoided vignette	15.9**	11.4**	0.*0	1.1	1.6	0.2	1.6
Similarity to Character	4.8**	1.6	0.4	0.6	0.5	0.2	0.5
Ill Only:							
Desire to meet if regains health	0.4	2.1	0.6	0.1	0.0	0.4	2.4
Justice of Character's Illness	30.3**	0.5	1.1	1.7	0.0	2.6	0.5
Positive side to the illness?	0.0	0.0	0.0	0.2	0.0	0.0	0.0

* ----- $p < .05$ ** ----- $p < .01$

H : Health Manipulation
R : Religiosity Manipulation
S : Salience of Religion Manipulation

The Belief in a Just World and Victim Derogation.   Because participants in our study completed both just world measures and took part in a test of victim derogation, we were able to examine the extent to which victim derogation seemed to be the result of the belief in a just world.   Participants were divided into high and low belief in a just world (BJW) groups based on a median split on Rubin & Peplau's (1975) JWS.   Two-way ANOVAs, using BJW group (high/low) and health group (healthy/ pneumonia/ cancer) were carried out.   When the raw ratings of Mark were the dependent variable, there was only a significant effect of health group. BJW groups did not differ in their ratings of the character.   When the adjusted ratings of Mark were the dependent variable, there was again a significant effect of the health of the vignette character, $F(2,226) = 5.14$, $p < .01$.   In addition, BJW group was a significant predictor of adjusted character evaluation, $F(1,226) = 10.40$, $p < .01$.   Low BJW participants had a more positive adjusted opinion of characters (M=8.5) than did high BJW participants (M=2.6).   The health by BJW interaction was not significant, however. This indicates that high and low belief in a just world participants were not differentially affected by characters in different health conditions.   In other words, there was no difference in derogation patterns.

A second examination of the relationship of the belief in a just world to victim derogation involved a correlational analysis. Correlations between our three measures of the belief in a just world and the evaluation of our character were run for each vignette type. Raw ratings of Mark did not correlate significantly with measures of

the belief in a just world for any of the vignette types. Adjusted
ratings did not correlate significantly with any of the just world
measures for the "healthy" vignette. For the pneumonia and cancer
vignettes, however, all correlations between adjusted ratings and
just world measures were negatively related, two of the six
significantly so. Participants who read the pneumonia vignette
showed a significant negative correlation between the elaborated just
world question and the adjusted ratings of Mark, $r(75) = -.22$, $p < .05$.
Participants who read the cancer vignette showed a significant
negative correlation between the just world scale and the adjusted
ratings of Mark, $r(78) = -.20$, $p < .05$. These results suggest that in
the ill conditions, ratings of the character drop as the belief in a
just world rises.

Part 2.

Belief in a Just World Measures. While the three different
measures of the belief in a just world correlated significantly,
their correlations were not as high as had been expected (see Table
8).

Of particular concern was the difference between responses to
Sorrentino and Hardy's "To what extent do you believe in a just
world?" question and what was intended to be a more clear elaboration
of it, "To what extent do you believe that there is justice in the
world: that good things happen to good people while bad things happen
to bad people." It was expected that responses would be identical.

Only 68 of 239 participants (28%) gave the same response to both questions. The mean value of the Sorrentino and Hardy question was 5.90 on a nine-point scale. The mean value for the more elaborate question was 4.74. The two means are significantly different. $\underline{t}(238) = -9.5$, $\underline{p} < .001$.

The just world scale as a whole had a mean inter-item correlation of $\underline{r} = .096$. The Cronbach's alpha value was .67. A principal components factor analysis extracted seven factors with eigenvalues greater than one. Together, the seven factors accounted for 58.1% of the variance in the data. The largest factor accounted for 15.6% of the variance. When a factor analysis identical to that used by Hyland and Dann (1987) (Principal axis factoring, PA2) was used, again restricting the rotation to the largest 4 factors, our factors bore no resemblance to theirs. Owing to this inconsistency, we did not examine the correlations between indices of religiosity and "factors" of the JWS.

Religiosity and Just World Scores. A correlational analysis including all participants, using 3 indices of the belief in a just world (The Rubin and Peplau scale and the two 9-point questions described in the above section) and eight measures of religiosity (the CO scale, religious service attendance, the importance of religion in everyday life, the importance of salvation, self-rated religiosity, and Pargament et al.'s three problem solving scales), yielded only one significant correlation out of a possible twenty-four. The tendency to defer to God in problem solving (active God, passive person) correlated significantly with the elaborated

Table 8.

Correlations of

Belief in a Just World Measures.

	JWS	BJW
BJWSH	.25	.41
JWS		.44

All correlations involved over 230 participants and are significant at p<.001.

JWS   --- Rubin & Peplau's (1975) Just world scale.
BJW   --- "To what extent do you believe that there is justice in the world: that good things happen to good people while bad things happen to bad people."
BJWSH   -- "To what extent do you believe in a just world?" Used by Sorrentino & Hardy (1974).

Table 9.

Overall Religiosity and Just World Correlations

	JWS	BJW	BJWSH
Christian Orthodoxy	.05	.08	.06
Rel. Service Attendance	.08	-.03	.05
Importance of Religion	-.01	.03	.03
Importance of Salvation	-.02	.01	.02
Self-Rated Religiosity	-.05	.03	.02
Self Prob. Solving	.01	-.03	-.00
Collaborative Prob. Solving	.02	.06	-.00
Defer Prob. Solving	.00	.11 *	.06

* ----- $p < .05$

At least 234 participants are included in each correlation.

JWS ----- Rubin & Peplau just world scale.
BJW ----- Elaborated just world question.
BJWSH ----- Sorrentino & Hardy just world question.

"belief in a just world" question, $r(227)=.11$, $p<.05$. The correlations are presented in Table 9.

Problem Solving Styles. As mentioned above, of the three problem solving strategies delineated by Pargament et al. (1988), Self-directing (active person/passive God), Collaborative (active person/ active God), and Deferring (passive person/active God), only the tendency to defer to God in problem solving correlated with a measure of the belief in a just world. Partial correlations, controlling for the other two problem solving styles reduced even this correlation to one that only approached significance. When the correlation between the tendency to defer to God and the three measures of the belief in a just world statistically controlled for scores on the "Self-directing" and "Collaborative" problem solving scales, the correlation between the "Defer" scale and the Sorrentino and Hardy just world question was $r(216)=.11$, $p=.059$. The correlation between "Defer" and the elaborated just world question was $r(216)=.10$, $p=.072$. Other partial correlations between just world and problem solving measures were nonsignificant.

As well as correlations between religiosity and the defer, collaborative and self scales, it was also hypothesized that for those scoring above the median on each of the problem solving measures, certain correlations between the religiosity and belief in a just world measures would hold. Each of these analyses involved approximately one half of the 240 participants.

For those above the median (19 of a maximum of 30) on the Self

measure (active person/passive God), no measure of religiosity correlated significantly with any of the three measures of the belief in a just world.

For those above the median (11 of a maximum of 30) on the Collaborative problem solving measure (active person/active God), two of a possible 15 correlations between the five measures of religiosity and the three measures of the belief in a just world proved to be significant. CO correlated significantly with scores on Rubin and Peplau's just world scale, $r(112)=.28$, $p<.01$. "The importance of religion in everyday life" correlated with the Sorrentino and Hardy belief in a just world question, $r(113)=.18$, $p<.05$. Those correlations were between the measures used by Wagner and Hunsberger (1984) and Sorrentino and Hardy (1974) respectively.

Finally, for those with scores above the median (9 out of a maximum of 30) on the Defer problem solving measure (passive person/active God), none of the 5 religiosity measures correlated significantly with any of the 3 belief in a just world measures.

Those below the median on the Collaborative and Defer scales similarly showed no relation between religiosity and the belief in a just world. For those below the median on the Self problem solving scale, there were a number of significant correlations between measures of religiosity and the belief in a just world. The CO scale correlated positively with the Sorrentino and Hardy just world question, $r(113)=.21$, $p<.02$, the elaborated belief in a just world question, $r(113)=.18$, $p<.05$, and approached a significant correlation with the Rubin and Peplau just world scale, $r(112)=.16$, $p=.051$.

Religious service attendance correlated positively with the JWS, $r(112)=.18$, $p<.05$, and the importance of salvation question correlated with the Sorrentino and Hardy just world question, $r(112)=.18$, $p<.05$. Four out of a possible fifteen correlations were thus significant.

God/Religion as Care vs. Justice Oriented. For those participants who scored above the median on the religion as justice question but below the median on the religion as care question (n=29), there were no. significant correlations between the three measures of the belief in a just world and the five measures of religiosity.

For the participants who were above the median on the God as justice question, but below the median on the God as care-oriented question (n=35), the self-rated religiosity question correlated significantly with the Sorrentino and Hardy belief in a just world question, $r(34)=.30$, $p<.05$. None of the other fourteen possible correlations was significant.

On the "care" side, those who were above the median on the religion as care question but below the median on the religion as justice question (n=53) showed a number of significant correlations between the Sorrentino and Hardy just world question and measures of religiosity. It correlated with religious service attendance at $r(53)=-.25$, $p<.05$, with the importance of religion in everyday life at $r(53)=-.26$, $p<.05$, with the importance of salvation, $r(53)=-.31$, $p<.05$, and with the self-rating of religiosity, $r(53)=-.30$, $p<.05$. None of the other possible 11 correlations was significant.

Finally, for those who were above the median on the God as care-oriented question, but below the median on the God as justice oriented question (n=56), there were again a number of significant correlations. They were mostly with the Sorrentino and Hardy question. It correlated negatively with Christian Orthodoxy, $r(56)=$ -.28, $p<.05$, religious service attendance, $r(56)= -.38$, $p<.01$, the importance of salvation, $r(55)= -.31$, $p<.05$, and self-rated religiosity, $r(56)= -.23$, $p<.05$. In addition, the JWS also correlated negatively with self-rated religiosity, $r(56) = -.29$, $p<.05$. Five of a possible 15 correlations were thus significantly negatively correlated for this subgroup.

In light of the fact that the median on the above four measures was not always the midpoint of the scale, analyses were also run with participants who were above the midpoint (4 out of a possible 7) on one of the care scales but below the midpoint on the corresponding justice scale, or vice versa. This resulted in sets of participants who indicated, in absolute rather than relative terms, that they agreed with one view of God or religion (care or justice) while disagreeing with the other. Those who saw God or religion as justice oriented (5 or more out of seven on the given scale) also tended to see God and religion as care oriented. Only three participants who were above the midpoint on each of the justice questions were also below the midpoint (3 or less on a scale of 7) on the corresponding care question.

The reverse, however, was not true. There were 55 participants who were above the midpoint on religion as care-oriented and below

the midpoint on religion as justice-oriented. For this group, only one of a possible fifteen correlations between religiosity and the belief in a just world proved to be significant. Religious service attendance correlated positively with scores on Rubin, and Peplau's (1975) JWS, $r(55)=.25$, $p<.05$. There were also 56 participants (likely with some overlap with the above group) who were above the midpoint with regard to God being care-oriented but below the midpoint with regard to God being justice oriented. For this group, there were five of a possible 15 correlations between religiosity and just world beliefs that were significantly negatively correlated. Sorrentino and Hardy's just world question correlated negatively with church attendance, $r(56)=-.38$, $p<.01$, Christian Orthodoxy, $r(56)=-.28$, $p<.05$, the importance of salvation, $r(55)=-.31$, $p<.05$, and self-rated religiosity, $r(56)=-.23$, $p<.05$. The just world scale correlated negatively with self-rated religiosity, $r(56)=-.29$, $p<.05$. There were no significant positive correlations.

Religious Denominations. The significant differences between the religious denominations in the sample insofar as their religiosity is concerned seem generally attributable to the slightly higher than average religiosity of Baptists and the lower religiosity of those professing to be atheists, agnostics or have a "personal religion." The means and analyses of variance are given in Table 10, which also shows that just two of the five significant differences in religiosity remain significant after agnostics, atheists and those professing a personal religion are removed from the sample.

Among all of the belief groups having 10 or more participants in

our sample, there were no differences in their belief in a just world as rated by our three measures. The means for each group are presented in Table 11.

Finally, we see in Table 12 that there are no differences amongst the religious denominations in their rating of the average university student. Also, their differences on the problem solving style measures and justice/care orientations seem mainly attributable to differences between those who indicated a religious affiliation and those who did not (personal religion, agnostics, and atheists).

There were differences between denominations in this sample with regard to their religiosity and belief in a just world correlations. In Table 9, we saw that overall there was extremely little evidence of a significant correlation, either positive or negative, between religiosity and the belief in a just world. Anglicans, agnostics, and conservative protestants (Baptists, Pentecostals and Mennonites) all showed no or weak and inconsistent correlations between our three measures of the belief in a just world and our five measures of religiosity (see Appendix B). Two of fifteen correlations were significant and positive for Catholics (see Table 14). Those who professed a "personal religion" showed two out of fifteen significant correlations, both negative. Members of the United Church of Canada showed considerable evidence of a positive correlation between religiosity and the belief in a just world. All correlations were positive, nine of the 15 were significantly so at the $p < .05$ level or better (see table 13). An analysis using liberal protestants (Anglican, United, Presbyterian, Lutheran and Methodist) similarly

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revealed a large number (10 of 15) of significant positive correlations between indices of religiosity and the belief in a just world. United Church members, though, made up more than half of that sample (see Table 16).

Table 10.

Mean Religiosity Scores by

Religious Denomination

(Groups with 10 or more in sample)

RELIGION	CO	ATT	IMPREL	IMPSALV	RELPERS	N
Anglican	129	2.3	4.9	5.2	4.5	19
Presbyterian	140	2.5	4.4	5.4	4.3	12
Baptist	163	4.7	7.0	8.4	6.4	11
United	138	2.6	5.2	5.6	4.6	38
Catholic	141	3.3	5.6	6.1	4.7	55
Personal Rel.	103	1.6	3.9	4.8	3.3	32
Agnostic	84	1.7	1.7	1.8	0.9	30
Atheist	38	1.0	1.7	1.7	0.9	11

$F_{(7,177)}$ 34.7** 18.9** 15.7** 15.4** 18.3**

Excluding personal,
agnostic & atheist:

$F_{(4,112)}$ 1.60   8.31** 2.30   2.62*   1.55

* -- $p < .05$ ** -- $p < .01$

CO   : Christian Orthodoxy (Fullerton & Hunsberger, 1982)
ATT   : Religious service attendance
IMPREL : The importance of religion in everyday life
IMPSALV: The importance of salvation
RELPERS: Self-rated religiosity
N   : Number of members of each group in sample

Table 11.

Mean Just World Scores by

Religious Denomination

(Groups with more than 10 adherents in sample)

RELIGION	JWS	BJWSH	BJW
Anglican	81.2	6.4	4.7
Presbyterian	86.4	6.3	4.9
Baptist	79.6	5.7	4.4
United	84.5	5.6	5.2
Catholic	83.2	6.1	5.0
Personal Religion	79.2	6.0	4.1
Agnostic	84.6	5.5	4.6
Atheist	83.1	6.0	4.5
$F_{(7,177)}$	0.92	0.59	1.80
Excluding personal, agnostic & atheist:			
$F_{(4,112)}$	0.89	0.80	0.89

JWS   : just world scale (Rubin & Peplau, 1975).
BJWSH : "To what extent do you believe in a just world?"
(Sorrentino & Hardy, 1974)
BJW   : "To what extent do you believe that there is
justice in the world: that good things happen
to good people while bad things happen to bad
people?"

Table 12.

Mean Average Student Rating,

Problem Solving Style and

Justice/Care Orientation Scores

by Religious Denomination

RELIGION	AVG	SELF	COLLAB	DEFER	JGOD	JREL	CGOD	CREL
Anglican	102	20	11	9	3.5	4.5	4.9	5.3
Presbyterian	108	20	11	10	4.2	4.2	5.3	6.0
Baptist	104	13	18	13	3.8	3.5	6.5	5.5
United	107	18	13	10	4.5	4.2	5.5	5.6
Catholic	109	16	13	10	4.0	4.5	5.5	5.9
Personal Rel.	101	22	10	8	3.0	4.0	4.4	4.9
Agnostic	100	26	6	6	2.9	3.8	3.4	4.0
Atheist	108	26	6	6	1.0	2.1	1.8	3.1

$F_{(7,177)}$ 2.00   9.10** 11.73** 9.75** 6.73** 3.08** 12.9** 7.8**

Excluding personal,
agnostic & atheist:

$F_{(4,112)}$ 0.98   2.74*   2.57*   2.38   1.04   1.57   0.98   1.15

* -- $p < .05$ ** -- $p < .01$

AVG   : Rating of average university student.
SELF   : Self-directed problem solving (active person/passive God)
COLLAB: Collaborative problem solving (active person/active God)
DEFER : Deferring problem solving (passive person/active God)
JGOD   : "God rewards good people and punishes bad people."
JREL   : "My religion very much emphasizes that good people are
                rewarded and bad people are punished."
CGOD   : "God cares for and comforts those who suffer."
CREL   : "My religion very much emphasizes that those who suffer
                should be cared for and comforted."

Table 13.

Religiosity and Just World Correlations:

United (N=38)

	JWS	BJW	BJWSH
Christian Orthodoxy	.31 *	.26	.10
Rel. Service Attendance	.23	.25	.16
Importance of Religion	.40 **	.51 **	.42**
Importance of Salvation	.40 **	.51 **	.36 *
Self-Rated Religiosity	.34 *	.40 **	.16

* ----- p<.05   ** ----- p<.01

JWS ----- Rubin & Peplau just world scale

BJW ----- elaborated just world question

BJWSH ----- Sorrentino & Hardy just world question

Table 14.

Religiosity and Just World Correlations:

Catholic (N = 54)

	JWS	BJW	BJWSH
Christian Orthodoxy	.04	-.06	.27 *
Rel. Service Attendance	.23 *	-.17	.17
Importance of Religion	.02	-.10	.04
Importance of Salvation	-.14	-.21	.06
Self-Rated Religiosity	-.17	-.19	.02

* ----- $p < .05$

JWS ----- Rubin & Peplau just world scale

BJW ----- elaborated just world question

BJWSH ----- Sorrentino & Hardy just world question

Table 15.

Religiosity and Just World Correlations:

Personal Religion (N = 32)

	JWS	BJW	BJWSH
Christian Orthodoxy	.04	.09	-.04
Rel. Service Attendance	-.09	-.30 *	-.14
Importance of Religion	-.25	-.27	-.21
Importance of Salvation	-.21	-.23	-.20
Self-Rated Religiosity	-.31 *	.00	.17

* ----- $p < .05$

JWS ----- Rubin & Peplau just world scale

BJW ----- elaborated just world question

BJWSH ----- Sorrentino & Hardy just world question

Table 16.

Religiosity and Just World Correlations:

Liberal Protestants (N = 74)

(Anglican, United, Presbyterian, Lutheran & Methodist)

	JWS	BJW	BJWSH
Christian Orthodoxy	.25 *	.17	.24 *
Rel. Service Attendance	.10	.00	.10
Importance of Religion	.24 *	.34 **	.31 **
Importance of Salvation	.28 **	.33 **	.28 **
Self-Rated Religiosity	.17	.20 *	.22 *

* ----- p<.05   ** ----- p<.01

JWS ----- Rubin & Peplau just world scale

BJW ----- elaborated just world question

BJWSH ----- Sorrentino & Hardy just world question.

DISCUSSION

It seems that a number of factors can to some extent influence the rather tenuous relationship of religiosity to the belief that the world is a just place. In our experiment, we saw that the salience of religion can under some circumstances interact with religiosity and the health of a person to result in how that person is evaluated. In the correlational part of our study, we saw modest suggestions that the religiosity - just world relationship can vary with God concept, concept of religion, problem solving style (with or without God), and religious denomination. None of these factors, though, proved to be a clear determinant of how a person's religiousness related to his or her evaluation of a victim of illness or to his or her belief in a just world. Generally, religiosity and the belief in a just world seem to be unrelated.

Part 1. There was derogation of the ill characters relative to the healthy character in our experiment. This argues that the paradigm has been effective in drawing out basic results comparable to those of other just world studies. Surprisingly, however, whether we used the "raw" or the "adjusted" rating of Mark as the dependent variable made a difference in the influence of religiosity and the salience of religion on character evaluation. The results with the adjusted scores (ratings of the average university student were subtracted from ratings of the vignette character) were comparable to the findings of Wagner and Hunsberger (1984). Using a similar "adjusted" dependent variable, they, too, found a strong effect of

victimization (i.e.. derogation of a victim relative to a non-victim) on the ratings of the character, but no effect of observer religiosity. On the other hand. when our "raw" ratings were used as the dependent variable, we not only had an effect of victimization (health condition), but also of religiosity and a three-way interaction of health, religiosity and the salience of religion. Sorrentino and Hardy (1974) similarly used a measure comparable to our "raw" rating and reported a victimization by religiosity interaction. Our results did not replicate those of Sorrentino and Hardy, as we had a three-way interaction involving religiosity, victim health and the salience of religion, not a two-way interaction of religiosity and victim suffering. We also failed to find any interactions when we operationalized religiosity as they did ("the importance of religion in everyday life"). Our results do, however, suggest that varying the dependent measure may have partially accounted for the differences between the two previous studies. We found different patterns of effects of the variables using "raw" vs. "adjusted" ratings, just as the previous research has found different results using raw vs. adjusted ratings. Arguing against this line of logic is the fact that Wagner and Hunsberger (1984) found no interaction between victimization and religiosity when they ran a supplementary analysis on their "raw" ratings. Nonetheless, it is apparent that different findings may result from the use of different dependent measures. One conclusion that we can draw from the influence that operational definitions can have on the data is that any putative relationship between religiosity and the belief in a

just world may not be very robust. If it exists at all, it may be very fragile.

While the "adjusted score" results can be readily understood (people derogate the ill; religiosity and the salience of religion do not alter that effect), the "raw scores" (when religiosity is defined as Christian Orthodoxy) are less readily interpretable. This is of particular concern because the raw scores are probably more relevant to real world derogation. In reality, derogation by religious and nonreligious persons does not control for whether or not one generally likes people.

The hypothesis that high religious participants would be differentially affected by the salience of religion, was supported, but not in the expected direction. Derogation of the ill relative to the healthy occurred when religion was salient. All three vignette characters were rated equally when religion was not salient. The tendency is precisely the opposite of what was expected. Perhaps having religiosity made salient by having participants complete the CO scale arouses their belief in a just world and thus victim derogation occurs. The fact that Sorrentino, and Hardy (1974) found the opposite might be attributable to the manner in which religion was made salient or to other differences between the two studies, such as the definition of religiousness. It is also possible that religion was not as salient in the Sorrentino and Hardy study as we have assumed. If it was not salient, their findings would l in line with ours. Certainly they asked far fewer (3 vs. 31) and more general religiosity questions than we did.

The hypothesis that low religious participants would generally have a lower opinion of the ill relative to the healthy was not supported. That proved to be the case only when religion was not salient. When religion was salient, all three vignette characters were rated equally. The health by salience interaction was significant for the low religious group.

Because the low religious group contained, in addition to antireligious and nonreligious people, some mildly religious individuals, high salience of religion might have had the effect of causing them to resist casting blame on the ill person. In accordance with our three-way interaction, this would suggest that the salience of religion affects highly religious and weakly religious people differently. The high religious group may contain many who accept religion wholeheartedly and without question. They may be more inclined to believe that God is in control and thus the ill deserve their fate. Thus religious salience brings out the belief that the world is just and, consequently, there is victim derogation. The weakly religious, on the other hand, may be more inclined to emphasize the caring philosophy in many Christian ideals. The weakly religious disagree with some aspects of Christianity but accept others. It seems plausible to suggest that they would reject the notion of an ever intervening deity before rejecting the notion that one should not judge others and one should comfort the suffering. To such a person, the salience of religion would bring out caring and attenuate derogation. We would thus find, as we did, that for low religious participants there is derogation when religion

is not salient, but not when it is salient. This would suggest that the high religious group has a "justice" orientation while the low religious group has a "care" orientation with regard to religion. Our care and justice orientation questions did not shed much light on this suggestion as the highly religious tended to have higher scores on both orientations. Table 12 indicated that all religious groups were more inclined to indicate that God and religion were more concerned with caring for the suffering than with reward and punishment.

It is suggested that Sorrentino and Hardy's findings were the result of relatively low religious salience. The Wagner and Hunsberger findings are suggested to be the result of an "adjusted" dependent variable being used. Both of their results, in that case, may fit with ours. This conclusion must be qualified by noting that we had no interactions when we used the Sorrentino and Hardy definition of religion and Wagner and Hunsberger (1984) had no interactions with their victimization effect when they used raw ratings as their dependent measure.

While the influences of religion and the salience of religion may be subject to question, one finding is clear. Overall, participants rated unhealthy characters less positively than healthy characters. Is this the result of a belief that people get what they deserve? As mentioned in the introduction, there are a number of other possibilities. There is presumably no guilt in not helping the vignette character as there is no way that the participant could help that character. Thus Cialdini et al.'s (1976) suggestion that

derogation is intended to justify the observer's lack of helping seems to be a very weak explanation in this case.

The character may be seen as a person of relatively low integrity (Lerner, 1971). Although participants rated the character as generally not responsible for his illness, their ratings of his responsibility indicated that it was not certain that he had not brought it on himself. It could be that some participants felt that Mark was not entirely free from blame for his illness. He may have gone swimming in a river in the middle of winter and caught pneumonia. Or he may have chain smoked until he got lung cancer. In such cases, Mark ceases to be an innocent victim. In some sense, the participants are making assumptions that see that he gets what he deserves. This might be considered in accordance with the belief in a just world. But the test is not clean. Mark may not be an innocent victim. If it is reasonable to believe that he brought his fate upon himself, derogating him may also be reasonable, given our information, rather than an irrational strategy to maintain a belief that the world is just.

The "dark mood" hypothesis is another possible explanation for the derogation of the ill characters relative to the healthy character. The participants in this study indicated that they were considerably more upset by the cancer vignette than the pneumonia vignette, which in turn was more upsetting than the healthy character vignette. It seems plausible to suggest that the differences in the rating of the character may have been accounted for by the participants being upset, for whatever reason, by the vignette. That

distress may not necessarily be the result of a violated sense of justice.

With regard to other possible interpretations, then, it seems as though the derogation of the ill could be the result of either a reasonable low opinion of the character, a dark mood, or a belief in a just world. Our study does not allow us to examine which of these interpretations is most likely. In the absence of a clear demonstration of either of the first two possibilities, we will assume, as previous researchers have, that the just world interpretation is correct. As mentioned in the results section, there is some modest evidence that the adjusted ratings of Mark were negatively related to the belief in a just world for the ill characters only. This provides some evidence for the suggestion that the belief in a just world accounts for victim derogation to at least some extent.

Of the incidental findings, three seem of particular interest. First, high religious participants rated "the average university student" and the vignette character more positively than low religious participants. The results also indicated that the religious were more interested in meeting the character than low religious participants. This suggests that in this limited domain at least, religiosity may predispose people to be more positive towards others. A second finding was that the highly religious were also more upset than the low religious by the cancer and pneumonia vignettes and were more inclined to indicate that they would rather have avoided those vignettes. This might suggest a greater

sensitivity or emotionality on the part of the religious. On the other hand, it might reflect a greater tendency to want to appear to be more sensitive. Finally, one of the most interesting incidental findings involved the perceived preventability of illnesses. In general, pneumonia and cancer were seen as more preventable by those who read about a healthy character than by those who read about ill characters. This might indicate an attempt to shift the blame away from the ill when confronted with an ill person. It could also reflect a "dark mood," with those who have read about ill characters being less inclined to believe that illness can be avoided. They might feel that it is, after all, such a wretched world.

The shortcomings of this experiment include: 1) the possibility that the experimental manipulation was weak; 2) that demand characteristics may have influenced the findings; and 3) the manner in which the experiment was conducted.

First, the just world hypothesis suggests that people derogate victims because the occurrence of an injustice threatens their sense that they can control their outcomes. It is possible that reading a vignette simply isn't threatening enough for one to call upon defensive mechanisms to protect one's belief in a just world. It is a relatively mild manipulation. The derogation effect is there, but the results may not be as clear cut as we would like because some of the participants did not find the story upsetting. The mean ratings of how upsetting the vignettes were varied from only 1.74 for the healthy group to 5.42 for the cancer group. The maximum value on the scale was nine. As mentioned above, we must also question whether

the victim can truly be perceived as "innocent." It may not be at all irrational to assume that they deserve their fate. This shortcoming seems common to most, if not all, just world studies.

A second concern is that some participants may have deduced the true purpose of the experiment. Having rated themselves, they were subsequently asked to rate someone else. It seems possible that at least some of the participants would have assumed that these two scores would be compared. In the case of participants who read about an ill character, it seems plausible that some evaluators may have expected that we would compare the average student to the student with, for example, cancer. They may have felt we were looking at a fear of the ill and tried to "help" us in our research by rating the cancer victim less positively. On the other hand, such an awareness may have inclined some participants to indicate that they were not afraid of, or prejudiced against, the ill. Regardless, the fact that Mark was evaluated more positively than the average university student by all groups (only more so when he was healthy) would seem to argue against either interpretation.

A final shortcoming is that the paradigm is different from that used in previous research. The use of ill, as opposed to shocked, victims or the fact that participants completed a survey during class time, rather than evaluating someone on a television screen in small groups outside of class time, may have accounted for the the discrepancies between the present study and those of Wagner and Hunsberger (1984) and Sorrentino and Hardy (1974).

Shortcomings aside, our results would seem to suggest that while

people generally do denigrate victims, the relationship of religiosity to this denigration seems to largely depend on the operationalizations of the independent and dependent variables. People rate victims less positively than non-victims. That is the case in this paradigm as in the paradigm used by Wagner and Hunsberger (1984) and Sorrentino and Hardy (1974). The influence of religiosity, and the interaction of the salience of religion with religiosity, arises only with certain definitions of religiosity (e.g., Christian Orthodoxy) and certain evaluative measures (e.g., "raw" as opposed "adjusted" ratings). The influence of religiosity on victim derogation does not appear to be robust.

Part 2. The correlational portion of this study suggests that religiousness and the belief in a just world are significantly related only under special circumstances. The study investigated three fine-grained means of defining religion: problem solving style, care/justice orientation and religious denomination. Each suggested some differences in how religiosity related to different measures of the belief in a just world, but our variables merely began to tap the more complicated relationship between religiosity and the belief in a just world postulated by Zweigenhaft et al. (1985).

Contrary to the findings of Wagner and Hunsberger (1984) and Sorrentino and Hardy (1974), this study found virtually no evidence of an overall positive correlation between religiousness and the belief in a just world. This was in spite of the fact that eight measures of religiosity and three measures of the belief in a just world were used, including those from the previous studies. This

1.0

1.1

1.25   1.4   1.6

28   2.5

32   2.2

36

40   2.0

1.8
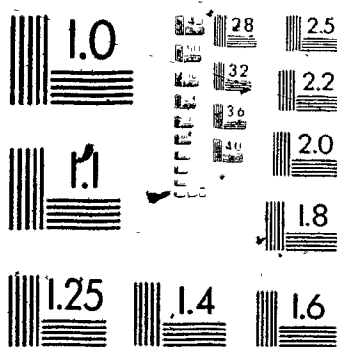
MicroD

could be because the previously reported relationships were themselves weak, because our sample of participants differed from theirs, or because of a context effect. A unique element of our study was that responding to various scales was preceded by a character evaluation task. This may have influenced subsequent religiosity and just world scores, as will be discussed shortly.

One of the "refined" religiosity variables that we investigated was a measure of problem solving style developed by Pargament et al. (1988). We hypothesized that the tendency to solve problems by oneself (without God) or in collaboration with God would correlate negatively with the belief in a just world. It was also expected that the tendency to solve problems by deferring to God would correlate positively with the belief in a just world. The only support for these hypotheses was a weak but significant positive correlation (r=.11) between the tendency to defer to God and one of our just world measures.

We also expected that those above the median on the "Self" and "Collaborative" scales would show negative correlations between measures of religiosity and measures of the belief in a just world. Participants with scores above the median on the "Defer" scale were expected to show a positive correlation between religiosity and the belief in a just world. No significant correlations were found for those above the median on the Self and Defer scales, but two of a possible fifteen correlations were significantly positively related for those above the median on the Collaborative scale. This offers some very limited support for the notion that those who tend to work

at their problems with God will have a greater belief that the world is just as they become more religious. Those below the median on the Defer and Collaborative scales showed no significant correlations between religiosity and the belief in a just world. For those below the median on the Self scale, however, four of the fifteen relationships between religiosity and the belief in a just world were significantly positively correlated. Christian Orthodoxy correlated with two just world measures, and approached significance on the third. CO thus seems to clearly correlate positively with the belief in a just world for those below the median on the measure of the tendency to solve one's problems without God. This suggests that those who are below average in their tendency to solve problems on their own tend to have a greater belief that the world is just as their religiosity, particularly as measured by CO, increases. Those who are particularly passive might be said to have a greater belief that there is justice in the world as they become more religious.

Generally, the problem solving strategy measures offered only some hints of the relationship between religiosity and the belief in a just world. The measures were only in one or two instances able to draw any relationship between religiosity and the belief in a just world.

Another refined measure of religiosity which we used was the distinction of religiosity and God as justice vs. care oriented. We suggested that those who felt that religion and God were concerned with caring for the suffering would be less inclined towards just world beliefs and victim derogation as they became more religious.

Those, on the other hand. who saw God and religion as concerned with meting out rewards and punishments would be inclined to have a greater belief in a just world as they became more religious. On the justice side. only one of a possible 30 just world - religiosity relationships was significant. That correlation was in accordance with our hypothesis, but given that it was one correlation out of thirty. it is likely that it is a chance occurrence.

Those who saw religion and God as care oriented but not justice oriented proved more interesting with regard to our investigation. For median splits based on the religion as care (high) and religion as justice (low) questions, four of a possible 15 relationships between measures of religiosity and the belief in just world were significant and negative. There were no significant positive correlations. This was in keeping with our hypotheses. All of these correlations involved the Sorrentino and Hardy (1974) just world question, "to what extent do you believe in a just world?" When the splits were based on absolute responses about the midpoint of the scale rather than on median splits. however. there was just one significant positive correlation.

Median splits on the God as care-oriented (high) and God as justice oriented (low) questions resulted in five out of fifteen significant negative correlations. Though only a third of them were significant. the fact that they were negative was as predicted. Splits about the midpoint. rather than the median, of the God as care (high) and God as justice (low) scales also yielded five significant negative correlations and no significant positive correlations

between measures of religiosity and the belief in a just world. Four of the five correlations involved the Sorrentino and Hardy just world question. As will be discussed shortly, it is believed that this question may offer an index of the extent to which people feel that one should strive to make the world just. Consequently, we can conclude that if one tends to see God as care oriented, but not justice oriented, the more religious one is, the less one believes that one should strive for justice in the world.

It appears, then, that the group most affected by the care/justice distinctions are those who see religion, and especially God, as concerned with caring for others, but not with giving rewards to the "good" and punishments to the "bad". As predicted, this subsample demonstrated a tendency towards a negative correlation between religiosity and the belief in a just world, but only a specific definition of the "just world." The high religious people in this group are less likely than the low religious to believe that they should strive to make the world a just place. Perhaps this is the case because God is believed to be caring for the suffering.

The distinctions described above, between problem solving styles and care/justice orientation, followed from the finding that there were denominational differences with regard to the religiosity and belief in a just world relationship (Zweigenhaft et al., 1985). This study also found denominational differences, though it is difficult to compare to the Zweigenhaft et al. study because of varying samples. While the correlations varied, mean belief in a just world did not vary by religious denomination.

For most religious groups, there was no significant relationship between religiosity and the belief in a just world. This must be qualified, though, by noting that only four groups had over 20 adherents in our sample. Other relationships may exist, but we were unable to find them, possibly due to the low number of participants in our investigation. There was some suggestion that members of the United Church of Canada show an increased belief in a just world with increased religiosity. Nine of fifteen possible relationships were significantly positively correlated. Just world scores correlated with all religiosity measures except religious service attendance. The JWS correlated with four of five religiosity measures, our elaborated justice question correlated with three of five religiosity measures (all but service attendance and CO) and the Sorrentino and Hardy question correlated with two of five religiosity measures. A grouping of "liberal protestants," over half of whom were United, similarly showed positive relationships on ten of the fifteen possible correlations. There was only very minimal support for Zweigenhaft et al.'s report of a positive correlation between religiosity and just world beliefs for Roman Catholics. Two of the fifteen correlations were significantly positively related. The only other group showing consistent significant correlations involved those who professed a "personal religion." Two of the fifteen relationships were significantly negatively correlated. There were not enough Baptists or Quakers to compare to Zweigenhaft et al.'s significant findings for those groups.

The interpretation of denominational differences offered by

Zweigenhaft et al. may be valid given our findings. They maintained that the emphasis in the Catholic Church on the Church's providing answers and the emphasis on individual conscience among Baptists and Quakers seemed to at least partially account for their findings. In their research, Catholics showed a positive correlation and Quakers and Baptists showed negative correlations between measures of religiosity and the belief in a just world. It seems reasonable to believe that those with personal religious beliefs have a tendency to stress individual conscience on religious matters. They apparently feel comfortable saying that their religion is a matter of personal belief. Catholics again show a (weak) positive relationship, perhaps reflecting the tradition of clerical interpretation of religious matters and a sense that the church will look after the affairs of the World. The findings with United Church members are more troublesome. The emphasis on structure and collectivism as opposed to individual conscience in their theology and tradition is not as clear. For the present, we simply note that differences seem to exist in the religiosity - just world relationship by religious denomination.

There is some evidence, then, that problem solving strategy, care vs. justice orientation and religious denomination all draw out some differences in the relationship of religiosity to the belief in a just world. Those less inclined to solve problems by themselves show a greater belief in a just world as they become more religious. Those who believe that God cares for the suffering, but do not see God as concerned with meting out rewards and punishments, show less

of a tendency to strive for a just world as they become more religious. There are also denominational differences that may result from different emphases on the nature of religion in various religious traditions. None of those influences, though, is as robust as had been expected. While we cannot readily account for differences in the religiosity/just world relationship, we do have a number of exceptions to previous findings. It seems clear that we cannot speak of a simple relationship between an overall quantification of religiosity and an overall quantification of the belief that the world is just.

A number of factors may have muddied the waters in this correlational part of the investigation. The measures of justice/care may be weak, the evaluation task that preceded the completion of scales may have confounded the responses on the subsequent scales, and our measures of the belief in a just world may be inadequate.

Four questions that were intended to measure the extent to which individuals' saw religion and God as concerned with caring for the suffering as opposed to administering reward and punishment were developed for this study. While there is some evidence that the questions differentiated participants as predicted, it is not known whether they are valid and reliable measures. The use of a measure such as Gorsuch's God Concept scale (1968, cited in Spilka, Hood and Gorsuch, 1985) or perhaps a ranking of the attributes of God and religion could prove a more effective and valid means of distinguishing the care and justice orientations.

Surprisingly, no overall correlation between religiosity and the belief in a just world was found. Given that the correlations reported in previous studies were rather weak, it could be simply a random occurrence that in this study they did not approach significance. That seems difficult to accept, though, considering the number of measures used to quantify each of the two variables. One difference between this study and previous ones is that the completion of "self-report" measures followed the evaluation of the average university student and often (depending upon salience of religion condition) of a specific vignette character. This may have interfered with subsequent responses, by in some instances making injustice salient. Reading about someone with cancer, for example, may have made a person more pessimistic than usual when completing the just world scale, resulting in lower just world scores. However, a one-way ANOVA did not reveal an effect of health condition on just world scores. Attention may also have wavered on the part of many of the participants because of the time at which the questionnaire was administered. It was distributed in the last two weeks of classes in March 1988. Some participants may have been preoccupied with upcoming exams and consequently did not respond to the surveys as carefully as would otherwise have been the case.

Finally, there is considerable concern about all three of the measures of the belief in a just world. Rubin and Peplau's (1975) just world scale (JWS) proved, as it did for Wagner and Hunsberger (1984), to have very poor psychometric properties. Further, as Wagner and Hunsberger (1984) and Hyland and Dann (1987) reported, it

was found to yield a number of factors when factor analyzed. This indicates that, at best, the JWS does not tap one dimension but many. Given that our factors were not the same as those reported by Hyland and Dann (1987), the dimensions tapped do not even appear to be consistent. While the factors, may in some sense be a group of attitudes that relate to what we might want to call "the belief in a just world", they are certainly not measuring the one-dimensional attitude that Lerner (1980) argues people have to greater and lesser extents.

We also found evidence that our two other measures of the belief in a just world were not interpreted as asking the same question. Participants gave significantly higher- ratings on a nine-point scale to the Sorrentino and Hardy question "To what extent do you believe in a just world?" than to what was intended to be a clearer elaboration of the same question: "To what extent do you believe that there is justice in the world: that good things happen to good people while bad things happen to bad people." The elaborated question was developed because it was believed that the original question was ambiguous. These questions were presented one after the other and it could be that this caused many participants to assume that they were asking different things. It seems possible that the original question was interpreted as meaning "To what extent do you believe that we should try to create a just world?" This would account for the higher scores on the original question as it seems likely that people would generally be more inclined to desire justice in the world than believe that there is justice in the world.

A final issue about our operationalizations of the belief in a just world concerns our elaborated question. As one participant wrote, "Is that justice?" A number of participants may not have felt that rewarding the good and punishing the bad is just. It represents an attitude of retributive justice that may be unpalatable to a participant who believes that justice involves rewards for all and aid for those in difficulty. If one doesn't believe there are "bad" people, the question cannot readily be answered. The whole notion that rewards and punishments are the basis of justice is in fact questionable. Kohlberg (1971) has postulated a number of stages of moral development. The present notion of "justice" may conceive of universal ethical principles that only have rewards and punishments as their consequences. But Lerner's view of justice is also distressingly close to the most primitive of Kohlberg's moral reasoning stages: that physical consequences determine what is good and bad. It also may reflect another rather low-level stage, in which what is instrumental to the individual is seen as good. Lerner's (1980) conceptualization of a "just world" is very specific. It refers to the belief that the good are rewarded and the bad are punished. It is no doubt important to examine the worrisome implications of this belief, but we must realize that it involves a very specific notion of what a "just world" entails. It would be of interest to see how other conceptualizations of justice related to religiosity and victim derogation.

There are serious problems, then, with the measures of the belief in a just world. They all intercorrelate significantly and

may, to most people, reflect a common concept. The JWS, though, also measures a number of other concepts and our nine-point questions may be interpreted differently by different people. They are ambiguous and may not reflect a common notion of "justice."

In summary, the second part of the study did not find overall correlations between religiosity and the belief in a just world. It did, however, find suggestions that both positive and negative correlations between the two variables can exist when specific definitions of religiosity and the belief in a just world are used. Justice/Care orientation, problem solving strategy, and religious denomination all presented some instances in which different relationships existed for our two main variables of interest. This supports Zweigenhaft et al.'s contention that the relationship between religiosity and the belief in a just world is much more complicated than had previously been assumed. The precise nature of that relationship is far from clear.

Overall Conclusions. This research did not find a strong overall relationship between religiosity and the belief in a just world. In part one, our results varied considerably depending upon our definition of religiosity and our choice of a dependent variable. Our main results showed that the salience of religion affected character evaluations differently for low and high religious people. It was found that the highly religious derogated the ill (i.e., had a lower opinion of them than the healthy character) when religion was salient, but not when salience was low. The low religious only derogated when religion was not salient. Other results though, using

different operationalizations, replicated the findings of Wagner and Hunsberger (1984) in which religiosity did not affect victim — derogation. The definitions of religiosity and the dependent variable seem crucial. This may suggest that the influence of religiosity on the evaluation of victims is, at best, weak.

In part two, we found no overall relationship between self-reported religiosity and self-reported belief in a just world. The Pargament et al. (1988) problem solving scales did not generally correlate with the belief in a just world, but there were some instances in which those scoring high or low on those scales showed the predicted correlations between religiosity and the belief in a just world. The Care/Justice distinction proved effective in one case. Those who saw God as care oriented, but not justice oriented, tended to show the predicted negative correlation between religiosity and the belief in a just world. Finally, there were differences between religious denominations with regard to religiosity/just world correlations.

Taken together, these results present suggestions of a number of possible moderators of the religiosity - belief in a just world relationship. Part one, the experiment, has suggested that religiosity does not affect victim derogation when we control for the tendency of the religious to like people more. It also demonstrated that both the religiosity of the observer and the salience of religion combine to influence the extent of victim derogation in absolute terms. The second, correlational, part of the study seems to suggest that specific circumstances must be met for there to be a

relationship between religiosity and self-reported belief in a just world. This finding and the importance of the definition of "religious" in part 1 are in keeping with Zweigenhaft et al.'s (1985) contention that the relationship between religiosity and the belief in a just world is much more complicated than had previously been believed.

In numerous instances, it has become very apparent that differing operationalizations of variables have yielded strikingly different results. In part one, for example, our three-way interaction of religiosity, health and the salience of religion occurred only when religiosity was defined as Christian Orthodoxy. It also only appeared when the "raw" evaluation of the vignette character was the dependent variable. There was no three-way interaction when the "adjusted" evaluation of the character was the dependent variable. Similarly, religiosity was only a significant predictor of the rating of the vignette character when it was defined as Christian Orthodoxy or religious service attendance. Even in those cases, the effects disappeared when the "adjusted" ratings of the character were used as the dependent variable. In part two, the three operationalizations of the belief in a just world seem very prone to different interpretations. An improved instrument is much needed.

The original suggestion (Lerner, 1980; Rubin & Peplau, 1975) that religiosity and just world beliefs both meet needs for a structuring of one's cognitive universe and therefore should correlate positively is very much in doubt. We have found that the

two variables can correlate negatively or positively, depending upon other variables. Most generally, it seems that they do not relate to each other at all. On the just world side, future studies might involve specifying exactly what variables account for different relationships between religiosity and the belief in a just world. It is possible that the differences presented here, between religious denominations and care/justice orientation may reflect other variables, such as authoritarianism, that influence just world beliefs. Their examination will allow us to have a better notion of who believes the world is a just place and who may subsequently be more inclined to derogate an innocent victim. In addition, tests of alternative explanations of victim derogation, such as the "dark mood" hypothesis, are still necessary. It is possible that people are rated less positively in victim derogation tasks generally because witnessing someone suffering is upsetting. That it is upsetting may reflect a violation of the sense that people ought to get what they deserve, but it also might simply reflect a more basic reaction which bypasses cognitions about justice. An adequate measure of the belief in a just world is also necessary if research in the area is to continue. The three measures used in this study are all questionable.

On the psychology of religion side, we have evidence that the religious can react in very different ways to the ill. The salience of religion sometimes affects high and low religious participants differently. This could affect the extent to which one would want to raise the issue of religion if one intends to arouse compassion for

victims. For example, if one were speaking to an orthodox Christian audience. there is some suggestion that if religion were made salient. the audience would be all the more inclined to derogate victims. One might thus wish to avoid references to religion if one wishes to arouse compassion for the plight of the suffering in our world. Various dimensions of religiosity have also become apparent. We have found that those who defer to God to solve their problems and those in certain religious denominations tend to have a greater belief in a just world as they become more religious. For such people, religion may be a means of ordering the universe. It offers assurance that the world is as it should be.   It is just. Such people may be more inclined to derogate a victim if they are highly religious.   On the other hand, those who see God as care oriented, but not justice oriented, and people who profess a personal religion may tend to have less of a belief that the world is a just place as they become more religious.   Their religion is presumably not as related to the sense that the world is as it should be. Rather, religion might be seen as a socialized inclination to do good, to better the world.   Their religiousness would be related to a decreased tendency to hold the ill responsible for their sicknesses.

Religiosity has many aspects to it.   Attitudes towards the ill may become more positive or more negative with greater religiousness. What is important is the aspect of religiosity that is emphasized by a given individual. If religion relates to victim derogation at all, that relationship is rather weak. If one was called upon to make a decision, one might be wise to conclude that, at least in the context

of this study, religiosity and the belief in a just world are unrelated. Most important to future research on the belief in a just world, generally, is the development of an adequate measure of the concept and the clear demonstration that victim derogation is in fact the result of individuals attempting to maintain a belief in a just world.

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.APPÉNDIX A

SAMPLE QUESTIONNAIRE BOOKLET

HEALTHY CONDITION, HIGH SALIENCE OF RELIGION

SURVEY NUMBER: _____

QUESTIONNAIRE

This booklet requests your opinions on a variety of topics and asks about aspects of your background. Your responses are entirely anonymous. Please do not put your name anywhere on the questionnaire.

Your individual responses will be kept in the strictest confidence. The information obtained will be analyzed on a group basis only, not on an individual basis.

You are free to withdraw from this study at any time, in which case none of your responses will be included in the analysis. Should you wish further information about the study, please contact one of the people listed below.

Thank you very much for your cooperation!

James Lea (Researcher)
tel.: (519) 746-8336

Dr. Bruce Hunsberger (Supervisor)
Dept. of Psychology
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/HHI

PART 1 : GENERAL PERSON PERCEPTION

In this section, we would like you to rate the average university student using the 18 adjective scales given below. As you will notice, each scale is anchored at both ends by an adjective (one being the opposite of the other). You are to mark somewhere between these two anchoring points the place which you think best describes the average university student on this dimension. For example, if the dimension is "nervous-calm" the scale would be:

nervous $\underline{} \ \underline{} \ \underline{} \ \underline{} \ \underline{} \ \underline{} \ \underline{} \ \underline{} \ \underline{}$ calm

$\ \ 1\ \ 2\ \ 3\ \ 4\ \ 5\ \ 6\ \ 7\ \ 8\ \ 9$

If you thought the average student was slightly nervous, you would place a mark in the #2 or #3 position; however, if you thought the average student was rather calm, you would place the mark in position #7 or #8. Although you may feel that you do not have sufficient information to rate the average student on some of the scales, please do not leave any blank.

1. intelligent _ _ _ _ _ _ _ _ _ unintelligent

2. unlikeable _ _ _ _ _ _ _ _ _ likeable

3. cooperative _ _ _ _ _ _ _ _ _ uncooperative

4. bossy _ _ _ _ _ _ _ _ _ easygoing

5. mature _ _ _ _ _ _ _ _ _ immature

6. unimaginative _ _ _ _ _ _ _ _ _ imaginative

7. responsible _ _ _ _ _ _ _ _ _ irresponsible

8. nervous _ _ _ _ _ _ _ _ _ calm

9. patient _ _ _ _ _ _ _ _ _ impatient

10. unreasonable _ _ _ _ _ _ _ _ _ reasonable

11. flexible _ _ _ _ _ _ _ _ _ rigid

12. rude _ _ _ _ _ _ _ _ _ courteous

13. unselfish _ _ _ _ _ _ _ _ _ selfish

14. cold _ _ _ _ _ _ _ _ _ warm

15. sincere _ _ _ _ _ _ _ _ _ insincere

16. friendly _ _ _ _ _ _ _ _ _ unfriendly

17. cruel _ _ _ _ _ _ _ _ _ kind

18. attractive _ _ _ _ _ _ _ _ _ unattractive

PART 2 : ATTITUDE SURVEY

Below are statements related to specific religious beliefs. You will probably find that you agree with some of the statements and disagree with others to varying extents. Please mark your opinion on the line to the left of each statement, according to the amount of your agreement or disagreement, by using the following scale:

Write down a -3 in the space provided if you <u>strongly disagree</u> with the statement.

       -2 in the space provided if you <u>moderately disagree</u> with the statement.

       -1 in the space provided if you <u>slightly disagree</u> with the statement.

Write down a +1 in the space provided if you <u>slightly agree</u> with the statement.

       +2 in the space provided if you <u>moderately agree</u> with the statement.

       +3 in the space provided if you <u>strongly agree</u> with the statement.

If you feel exactly and precisely <u>neutral</u> about an item, write down a "0" in the space provided.

1. _____ God listens to all prayers.

2. _____ God exists as: Father, Son, and Holy Spirit.

3. _____ Man is <u>not</u> a special creature made in the image of God, he is simply a recent development in the process of animal evolution.

4. _____ Jesus Christ was the divine Son of God.

5. _____ The Bible is the word of God given to guide man to grace and salvation.

6. _____ Those who feel that God answers prayers are just deceiving themselves.

7. _____ It is ridiculous to believe that Jesus Christ could be both human and divine.

8. _____ Jesus was born of a virgin.

9. _____ The Bible may be an important book of moral teachings, but it was no more inspired by God than were many other such books in the history of Man.

10. _____ The concept of God is an old superstition that is no longer needed to explain things in the modern era.

11. _____ Christ will return to earth someday.

12. _____ Most of the religions in the world have miracle stories
in their traditions: but there is no reason to believe
any of them are true, including those found in the Bible.

13. _____ God hears all our prayers.

14. _____ Jesus Christ may have been a great ethical teacher, as
other men have been in history. But he was not the
divine Son of God.

15. _____ God made man of dust in His own image and breathed
life into him.

16. _____ Through the life, death, and resurrection of Jesus, God
provided a way for the forgiveness of man's sins.

17. _____ Despite what many people believe, there is no such thing
as a God who is aware of Man's actions.

18. _____ Jesus was crucified, died, and was buried but on the
third day He arose from the dead.

19. _____ In all likelihood there is no such thing as a God-given
immortal soul in Man which lives on after death.

20. _____ If there ever was such a person as Jesus of Nazareth,
he is dead now and will never walk the earth again.

21. _____ Jesus miraculously changed real water into real wine.

22. _____ There is a God who is concerned with everyone's actions.

23. _____ Jesus' death on the cross, if it actually occured, did
nothing in and of itself to save Mankind.

24. _____ There is really no reason to hold to the idea that
Jesus was born of a virgin. Jesus' life showed better
than anything else that he was exceptional, so why rely
on old myths that don't make sense.

25. _____ The Resurrection proves beyond a doubt that Jesus was
the Christ or Messiah of God.

PERSONAL RELIGIOUS ATTITUDES

Please respond to the following questions by circling the number that best represents your opinion or checking the appropriate space.

1. In which of the following religious groups were you raised?

_____ Protestant (Which denomination? _____)
_____ Catholic
_____ Some other religious group (Specify: _____)
_____ No Religion

2. What is your present religion?

_____ Protestant (Which Denomination?_____)
_____ Catholic
_____ Jewish
_____ Other (Please indicate: _____)
_____ "Personal Religion"
_____ No religion, since I do not know if God exists
_____ No religion, since I do not believe in God

3. How often do you attend religious services?

_____ More than once per week
_____ Once per week
_____ Once every two weeks
_____ Once per month
_____ Once or twice per year
_____ Never

4. To what extent do you consider yourself to be a religious person?

Very much   1   2   3   4   5   6   7   8   9   Not at all

5. How important is religion in your everyday life ?

Not at all
important   1   2   3   4   5   6   7   8   9   Extremely
                                                              important

6. How important is religious salvation to you?

Not at all
important   1   2   3   4   5   6   7   8   9   Extremely
                                                              important

PART 3 : SPECIFIC PERSON PERCEPTION

The following information was obtained from the standard questionnaire given to all students wishing to see the health centre physician at a major Canadian university:

Mark S. is a 19 year old English major. He is one of 3 children from a medium-sized town. He is an average student, doing well in some of his courses and not so well in others. He is uncertain about what he wants to do after graduation. Last summer, he worked at a camp as a counselor. He enjoys swimming, reading mystery stories, movies, TV, and dancing. He has 2 or 3 close friends and although he does date, he has no steady girlfriend. Mark was at the health centre for a required annual check-up and was found to be in good health.

We would now like you to rate the person about whom you have just read using the 18 adjective scales given below. As you will notice, each scale is anchored at both ends by an adjective (one being the opposite of the other). You are to mark somewhere between these two anchoring points the place which you think best describes the evaluated person on this dimension. For example, if the dimension is "nervous-calm" the scale would be:

nervous _ _ _ _ _ _ _ _ _ calm
        1 2 3 4 5 6 7 8 9

If you thought the person was slightly nervous, you would place a mark in the #2 or #3 position; however, if you thought the person was quite calm, you would place the mark in position #7 or #8. Although you may feel that you do not have sufficient information to rate the person on some of the scales, please do not leave any blank.

1. intelligent   _ _ _ _ _ _ _ _ _   unintelligent
2. unlikeable   _ _ _ _ _ _ _ _ _   likeable
3. cooperative   _ _ _ _ _ _ _ _ _   uncooperative
4. bossy   _ _ _ _ _ _ _ _ _   easygoing
5. mature   _ _ _ _ _ _ _ _ _   immature
6. unimaginative _ _ _ _ _ _ _ _ _   imaginative
7. responsible   _ _ _ _ _ _ _ _ _   irresponsible
8. nervous   _ _ _ _ _ _ _ _ _   calm
9. patient   _ _ _ _ _ _ _ _ _   impatient
10. unreasonable   _ _ _ _ _ _ _ _ _   reasonable
11. flexible   _ _ _ _ _ _ _ _ _   rigid
12. rude   _ _ _ _ _ _ _ _ _   courteous
13. unselfish   _ _ _ _ _ _ _ _ _   selfish
14. cold   _ _ _ _ _ _ _ _ _   warm
15. sincere   _ _ _ _ _ _ _ _ _   insincere
16. friendly   _ _ _ _ _ _ _ _ _   unfriendly
17. cruel   _ _ _ _ _ _ _ _ _   kind
18. attractive   _ _ _ _ _ _ _ _ _   unattractive

We would now like you to answer some further questions about Mark. Please circle the number that indicates your opinion. Again, even though you may not feel you have enough information to have formed an adequate impression, do not leave any questions unanswered.

1. How much would you like to meet Mark?

Not at all   1   2   3   4   5   6   7   8   9   Very much

2. How healthy or ill is Mark?

Very Healthy   1   2   3   4   5   6   7   8   9   Very Ill

3. How responsible do you think Mark is for his good health?

Not Responsible   1   2   3   4   5   6   7   8   9   Very Responsible

4. How preventable is pneumonia if one takes reasonable precautions?

Completely   Not at all
   Preventable   1   2   3   4   5   6   7   8   9   Preventable

5. How preventable is cancer if one takes reasonable precautions?

Completely   Not at all
   Preventable   1   2   3   4   5   6   7   8   9   Preventable

6. Did you find the description you have just read upsetting?

Very much   1   2   3   4   5   6   7   8   9   Not at all

7. Would you rather not have read the description?

No, I didn't mind   1   2   3   4   5   6   7   8   9   Yes, I regret
   reading it   reading it

8. How similar do you feel that you are to Mark?

Not at all Similar   1   2   3   4   5   6   7   8   9   Very Similar

PART 4 : ATTITUDE SURVEY PART B

Below are statements related to specific beliefs. You will probably find that you agree with some of the statements and disagree with others to varying extents. Please mark your opinion on the line to the left of each statement, according to the amount of your agreement or disagreement, by using the following scale:

Write down a -3 in the space provided if you <u>strongly</u> <u>disagree</u> with the statement.

-2 in the space provided if you <u>moderately</u> <u>disagree</u> with the statement.

-1 in the space provided if you <u>slightly</u> <u>disagree</u> with the statement.

Write down a +1 in the space provided if you <u>slightly</u> <u>agree</u> with the statement.

+2 in the space provided if you <u>moderately</u> <u>agree</u> with the statement.

+3 in the space provided if you <u>strongly</u> <u>agree</u> with the statement.

If you feel exactly and precisely neutral about the item, place a "0" in the space beside the statement.

1. _____ There is always some way that a problem can be resolved.

2. _____ I've found that a person rarely deserves the reputation he or she has:

3. _____ Basically, the world is a just place.

4. _____ People who get "lucky breaks" have usually earned their good fortune.

5. _____ Careful drivers are just as likely to get hurt in traffic accidents as careless ones.

6. _____ It is a common occurrence for a guilty person to get off free in Canadian courts.

7. _____ Students almost always deserve the grades they receive in school.

8. _____ Men who keep in shape have little chance of suffering a heart attack.

9. _____ The political candidate who sticks up for his principles rarely gets elected.

10. _____ It is rare for an innocent man to be wrongfully sent to jail.

11. _____ In professional sports, many fouls and infractions never get called by the referee.

12. _____ By and large, people deserve what they get.

13. _____ When parents punish their children, it is almost always for good reasons.

14. _____ Good deeds often go unnoticed and unrewarded.

15. _____ Although evil people may hold political power for a while, in the general course of history, good wins out.

16. _____ In almost any business or profession, people who do their job well rise to the top.

17. _____ Canadian parents tend to overlook the things most to be admired in their children.

18. _____ It is often impossible for a person to receive a fair trial in Canada.

19. _____ People who meet with misfortune have often brought it on themselves.

20. _____ Crime doesn't pay.

21. _____ Many people suffer through absolutely no fault of their own.

22. _____ Many different religious views are perfectly reasonable.

23. _____ God rewards good people and punishes bad people.

24. _____ My religion very much emphasizes that good people are rewarded and bad people are punished.

25. _____ God cares for and comforts those who suffer.

26. _____ My religion very much emphasizes that those who suffer should be cared for and comforted.

27. To what extent do you believe in a just world?

   Not at all   1 2 3 4 5 6 7 8 9   Completely

28. To what extent do you believe that there is justice in the world: that good things happen to good people while bad things happen to bad people?

   Not at all   1 2 3 4 5 6 7 8 9   Completely

PART 5: RELIGION AND PROBLEM SOLVING

Presented below are several statements concerning the role of religion in dealing with problems. Please: (a) read each statement carefully; (b) think about how often the statement applies to you; (c) decide whether each statement is true of you (1) never, (2) occasionally, (3) fairly often, (4) very often, or (5) always. Draw a circle around one of the five numbers to indicate how often the statement applies to you.

        1 = Never
        2 = Occasionally
        3 = Fairly often
        4 = Very often
        5 = Always

1. When it comes to deciding how to solve a
    problem, God and I work together as partners.   1 2 3 4 5

2. When faced with trouble, I deal with my
    feelings without God's help.   1 2 3 4 5.

3. I don't spend much time thinking about the
    troubles I've had; God makes sense of them
    for me.   1 2 3 4 5

4. In carrying out solutions to my problems, I wait
    for God to take control and know somehow he'll
    work it out.   1 2 3 4 5

5. When I have a difficulty, I decide what it
    means by myself without help from God.   1 2 3 4 5

6. Together, God and I put my plans into action.   1 2 3 4 5

7. When I have a problem, I talk to God about
    it and together we decide what it means.   1 2 3 4 5

8. When a situation makes me anxious, I wait
    for God to take those feelings away.   1 2 3 4 5

9. After I've gone through a rough time, I try
    to make sense of it without relying on God.   1 2 3 4 5

10. When considering a difficult situation, God
    and I work together to think of possible
    solutions.   1 2 3 4 5

11. I do not think about different solutions to
    my problems because God provides them for me.   1 2 3 4 5

12. I act to solve my problems without God's help.   1 2 3 4 5.

13. When I feel nervous or anxious about a problem,
    I work together with God to find a way to
    relieve my worries.   1 2 3 4 5

14. When thinking about a difficulty, I try to come
    up with possible solutions without God's help.   1 2 3 4 5

15. Rather than trying to come up with the right
    solution to a problem myself, I let God decide
    how to deal with it.   1 2 3 4 5

16. When a troublesome issue arises, I leave it
    up to God to decide what it means for me.   1 2 3 4 5

17. When deciding on a solution, I make a choice
    independent of God's input.   1 2 3 4 5

18. After solving a problem, I work with God to
    make sense of it.   1 2 3 4 5

Background Information:

Age: _____

Sex: M / F

Year in University: _____

Major: _____

THANKS VERY MUCH FOR YOUR PARTICIPATION !!

APPENDIX B

SUPPLEMENTARY RELIGIOSITY AND JUST WORLD CORRELATIONS

BY RELIGIOUS DENOMINATION

Religiosity and Just World Correlations:

Anglicans (N=19)

	JWS	BJW	BJWSH
Christian Orthodoxy	-.03	-.15	.42 *
Rel. Service Attendance	-.15	-.49 *	-.08
Importance of Religion	.13	.16	.30
Importance of Salvation	.18	.13	.25
Self-Rated Religiosity	-.01	-.04	.28

* ----- $p < .05$

JWS ----- Rubin & Peplau just world scale
BJW ----- elaborated just world question
BJWSH ----- Sorrentino & Hardy just world question

Religiosity and Just World Correlations:

Agnostic (N = 30)

	JWS	BJW	BJWSH
Christian Orthodoxy	-.18	-.16	-.19
Rel. Service Attendance	.24	.18	.15
Importance of Religion	-.02	-.02	-.14
Importance of Salvation	-.20	-.17	-.23
Self-Rated Religiosity	.09	-.07	-.22

* ----- $p < .05$

JWS ----- Rubin & Peplau just world scale
BJW ----- elaborated just world question
BJWSH ----- Sorrentino & Hardy just world question

APPENDIX C

PART 1: SUPPLEMENTARY ANALYSES

Mean Ratings of Vignette Character
With Balanced Experimental Cells
(Religiosity = CO)

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	121.0	111.5	106.2
Low Religiosity	108.1	109.4	100.7

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	117.2	120.8	113.8
Low Religiosity	116.8	99.2	105.4

NOTES   --   There are 13 participants per cell
        --   Higher scores indicate a more positive rating

ANOVA Summary Table for Ratings
with 13 Participants per Cell
(RELIGIOSITY = CO)

Source	df	Mean Square	F
Salience of Religion (S)	1	293.6	1.66
Religiosity (R)	1	2809.3	15.85 ^^^
Health Condition (H)	2	1133.0	6.39 ^^
S X R	1	108.3	0.61
S X H	2	144.5	0.82
R X H	2	110.3	0.62
S X R X H	2	836.3	4.72 ^^
Error	144	177.3	

^^   --- $p < .01$

^^^   --- $p < .001$

Mean Adjusted Rating of Vignette Character
With Balanced Experimental Cells
(RELIGIOSITY = CO)

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	15.15	4.54	3.77
Low Religiosity	13.46	0.31	2.92

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	8.08	6.15	2.85
Low Religiosity	9.08	3.54	0.38

NOTES -- There are 13 participants per cell
      -- Higher scores indicate a more positive rating

ANOVA Summary Table for Adjusted Ratings
With 13 Participants per Cell
(RELIGIOSITY = CO)

Source	df	Mean Square	F
Salience of Religion (S)	1	97.0	0.50
Religiosity (R)	1	142.3	0.73
Health Condition (H)	2	1254.0	6.41 **
S X R	1	11.9	0.06
S X H	2	232.9	1.19
R X H	2	37.9	0.19
S X R X H	2	18.2	0.09
Error	144	195.6	

** --- $p < .01$

Mean Ratings of Vignette Character
(RELIGIOSITY = "IMPORTANCE OF RELIGION")

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	116.1 (24)	112.0 (13)	103.8 (25)
Low Religiosity	114.3 (15)	109.6 (27)	103.4 (17)

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	113.0 (24)	113.3 (23)	114.5 (20)
Low Religiosity	120.4 (18)	103.9 (14)	106.3 (18)

NOTES -- Number in cell given in brackets
      -- Greater numbers indicate more positive rating

ANOVA Summary Table for
Vignette Character Ratings
(RELIGIOSITY = IMPORTANCE OF RELIGION)

Source	df	Mean Square	F
Salience of Religion (S)	1	313.3	1.62
Religiosity (R)	1	183.5	0.95
Health Condition (H)	2	1561.7	8.10 ***
S X R	1	39.4	0.20
S X H	2	450.0	2.33
R X H	2	434.8	2.25
S X R X H	2	440.9	2.29
Error	226	192.8	

*** $p < .001$

Mean Adjusted Ratings of Vignette Character:
Character - Average Student Ratings
(RELIGIOSITY = IMPORTANCE OF RELIGION)

High Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	10.04 (24)	4.69 (13)	4.79 (24)
Low Religiosity	13.29 (14)	2.15 (27)	- 1.12 (17)

Low Salience of Religion:

	Healthy	Pneumonia	Cancer
High Religiosity	7.79 (24)	6.86 (21)	3.95 (20)
Low Religiosity	8.72 (18)	5.07 (14)	1.28 (18)

NOTES -- Higher numbers indicate more positive ratings
-- number of participants per cell in brackets

ANOVA Summary Table for Adjusted Character
Ratings: Character - Average Student
(RELIGIOSITY = IMPORTANCE OF RELIGION)

Source	df	Mean Square	F
Salience of Religion (S)	1	0.0	0.0
Religiosity (R)	1	183.7	0.88
Health Condition (H)	2	1034.5	4.97 **
S X R	1	4.6	0.02
S X H	2	153.9	0.74
R X H	2	196.6	0.94
S X R X H	2	37.1	0.18
Error	222	208.3	

** --- $p < .01$

APPENDIX D

VERBAL INSTRUCTIONS

Hi.   My name is Jim Lea. I'm a graduate student here at
Laurier' and I'm carrying out a study on attitudes and person
perception for my M.A. thesis project.

I'd greatly appreciate it if you could fill out one of the
questionnaires that is now being distributed.   The study is
entirely anonymous and voluntary and should take about half an
hour to complete.

The questionnaire is fairly self-explanatory, it asks for
your impressions of different people and your opinions on a wide
variety of topics.   I'd like to ask you to please complete all
of the sections in the order in which they are presented.

Does everyone have a questionnaire?

[if yes]

Okay. I'd like to read the cover page with you.

[read cover page]

Are there any questions?

Okay, could you please turn to the first page and complete
the survey in order. If you have any questions at all, please
raise your hand and I'll try to answer them for you.

Also, we'll be posting the results in the Central Teaching
Building in June. If you would like to have the results mailed
to you as well. please put your name and address on the sheet

that is being passed around.

APPENDIX E

VERBAL DEBRIEFING

Thanks very much for completing the questionnaire. I really appreciate it.

I'd like to tell you a little bit about the study.

Essentially, we're investigating reactions to people in different situations. Each of you read a story about a person who was either healthy, had pneumonia, or had cancer. In all other ways, the person was identical. What some researchers have found is that people will evaluate people who are ill more negatively than healthy people.

Why, you might ask, would anyone have a lower opinion of a sick person? Well, research has suggested that many people have a need to believe in a just world. The idea is that people generally like to think that good things happen to good people and bad things happen to bad people. Since something bad happened to the sick person, people sometimes conclude that the sick person is a bad person. It gives them a sense that they have some control over whether good or bad things happen to them.

As you probably noticed, there are a lot of questions about your religious beliefs in the questionnaire. That's because we also want to look at how religiousness relates to the belief in a just world. Some research has suggested that the more religious you are, the more likely it is that you will believe that the world is a just place (possibly because you believe God

is looking after things).   If you believe that the world is a just place, you might be more inclined to have a lower opinion of victims of illness.   Other researchers, though, have suggested that the religious will have a higher opinion of the ill than will less religious people. We hope to be able to find out which is the case.

If you're interested in the specific results of this study, they will be posted on the third floor bulletin board of the Central Teaching Building by June 15, 1988.   If you asked for the results to be mailed to you, they should be sent to you at about the same time.

Are there any questions?

Okay, I'd like to thank you again for participating in the study.   It's very much appreciated.