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DISSERTATION

EFFECTS OF LIABILITY INFORMATION, SEVERITY OF INJURY,  
AND ATTITUDES TOWARD VENGEANCE  
ON COMPENSATORY AND PUNITIVE DAMAGE AWARDS

Submitted by  
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*In partial fulfillment of the requirements*  
for the Degree of Doctor of Philosophy  
Colorado State University  
Fort Collins, Colorado  
Spring 1999

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WE HEREBY RECOMMEND THAT THE DISSERTATION PREPARED UNDER OUR SUPERVISION BY WILLIAM DOUGLAS WOODY ENTITLED EFFECTS OF LIABILITY INFORMATION, SEVERITY OF INJURY, AND ATTITUDES TOWARD VENGEANCE ON COMPENSATORY AND PUNITIVE DAMAGE AWARDS BE ACCEPTED AS FULFILLING IN PART REQUIREMENTS FOR THE DEGREE OF DOCTOR OF PHILOSOPHY.

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## ABSTRACT OF DISSERTATION

### EFFECTS OF LIABILITY INFORMATION, SEVERITY OF INJURY, AND ATTITUDES TOWARD VENGEANCE ON COMPENSATORY AND PUNITIVE DAMAGE AWARDS

An experiment was designed to explore the effects of presence of liability information, severity of injury, and attitudes toward vengeance on compensatory and punitive damage awards. Three-hundred-eleven individual mock jurors read a trial summary describing a plaintiff injured in a motor vehicle accident. Half of the participants read irrelevant liability information, and the other half did not. Half of each of the aforementioned groups read of a mildly injured plaintiff and the other half read of a severely injured plaintiff. All participants were told that liability had been determined in a prior hearing, and then they awarded the plaintiff compensatory damages and, if appropriate, punitive damages. Finally, participants answered questions addressing manipulation effectiveness and completed a measure of attitudes toward vengeance.

Presence of liability information did not influence participants' compensatory damage awards or punitive damage awards. In accordance with legal theory, severity of the plaintiff's injury affected compensatory awards, and, in contrast with legal theory, severity of the plaintiff's injury affected punitive awards. Although revenge has played an integral part in the historical development of punitive damage awards, participants' attitudes toward vengeance had no effect on any dependent measure. Thus, jurors appear able to make civil legal decisions as the law dictates when presented with irrelevant

liability information as well as when using evidence related to plaintiff injury to decide compensatory damages, and jurors do not appear to be motivated by revenge when deciding punitive damages. However, jurors seem affected by hindsight bias; they are unable ignore evidence regarding plaintiff injury when deciding punitive damages. Implications for the psychological and legal research communities were discussed as well as pragmatic legal ramifications both inside and outside the courtroom.

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## DEDICATION

The dissertation is dedicated with great love and appreciation to my immediate and extended family. I am eternally grateful for innumerable gifts including a powerful foundation as well as unceasing encouragement to reach further. I have truly stood upon the shoulders of giants.

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## CHAPTER 1

### INTRODUCTION

In the United States, civil trials involving compensatory and punitive damages present challenges for legislators, legal advocates, psychologists, and society at large. Hired advocates clash in the courtroom, arguing their clients' perspectives in legal and personal conflicts. Tensions abound in the struggle to find fairness within the constraints of the general rules and restrictions of the legal process and the rich, detailed context of each individual case. Unfortunately, failures of justice happen frequently in American civil courts, and such failures are a vexing source of frustration not only for the individuals involved but also for legal scholars, legislators, and researchers.

Examples of uneven compensation in comparable cases fuel the fires of reform. Greene (1989), commenting on uneven outcomes, noted that a woman in Baltimore received \$25,000 in compensatory damages and \$1,500,000 in punitive damages for being handcuffed and thrown to the ground by a security guard who mistakenly believed she was shoplifting (*Sterling v. Beckenheimer's, Inc.*, 1987). In a strikingly similar case in Colorado Springs, a woman and her two teenage daughters were thrown against a wall and strip searched by security guards who wrongly suspected they were shoplifting. The jury awarded them a total of \$506 in compensatory damages and nothing in punitive damages (*James v. K-Mart*, 1987) (see Greene, 1989). Such inequities are all too common in the American civil legal system.

Procedural, theoretical, and psychological difficulties abound in the courtroom. The present research addresses a series of specific aspects of jurors' decision processes which present long-term difficulties to the American civil justice system, both inside the

courtroom and outside the courtroom. Jurors' decisions about compensatory and punitive damages inside the courtroom are relevant for the parties involved in the trial, and, more importantly, such decisions set standards for expected outcomes which in turn influence legal decisions about settlement outside the courtroom (Kalven, 1958; Wissler, Evans, Hart, Morry, & Saks, 1997).

In a typical civil case, the jury faces a complex series of decisions (Greene & Loftus, 1998). First, the jury must decide who is liable or responsible for the plaintiff's injuries. Jurors must base their liability decisions on the conduct of the parties involved in the event. If the jury finds the defendant liable for the plaintiff's injuries, then the jury typically decides on a compensatory damage award. However, the compensatory damage award should be driven not by the conduct of the parties involved nor by the jurors' beliefs about who is responsible for the event but by the extent of the plaintiff's injuries. The compensatory damage award should restore the plaintiff to his or her level of functioning before the accident (Greene, 1989; Kalven, 1958). Most often, the jury members are then finished with their work. However, if the conduct of the defendant has been more than merely negligent and has been willfully malignant and unacceptable, the jury may be asked to decide whether or not punitive damages would be appropriate, and, if so, what amount of punitive damages should be assessed in order to effectively punish the defendant and deter the defendant from future wrongdoing (Rustad & Koenig, 1993; Sales & Cole, 1984).

If a defendant acknowledges responsibility for a plaintiff's injuries or if the defendant is found liable in a prior judicial hearing, the jury must only decide damage awards, and the jury must do so based only on information relevant to the damage award in contention. In such a situation, only injury severity is relevant to compensatory damage awards, and only defendant wealth and severe defendant misconduct are relevant to punitive damage awards. However, in *Fuentes v. Tucker* (1947), a California appeals court set a precedent allowing information about the defendant's responsibility for the

accident, relevant only to the question of the defendant's liability and not to damages, to be presented to the jury after liability had already been admitted. The impact of irrelevant liability information on jurors' decisions about damages remains unknown.

The primary purpose of the present research was to empirically explore the effects of liability information on compensatory awards. Additionally, although the plaintiff's injury is legally unrelated to punitive damage awards, concerns exist regarding potential effects of the severity of the plaintiff's injury on punitive damage awards, and these concerns were also addressed in the present research. Finally, punitive awards serve only to punish the defendant's wrongdoing and to deter the defendant from future misconduct; personal revenge has no role in the modern legal theory of punitive damages. However, personal vengeance, an integral part of the original nature of early punitive damage awards, may still play a role in the modern legal system. The present research explored the potential relationships between attitudes toward revenge and jurors' use of punitive damage awards.

The background for the present research is discussed as follows. First, general concepts about both compensatory and punitive damage awards are presented, including goals, origins in western culture, and contemporary uses. Further, notions of vengeance are introduced in the history of punitive damages. Next, the potential for fusion -- the inappropriate use of liability or damages evidence in decision-making by jurors -- is introduced and explored with particular emphasis on the current state of empirical knowledge about jurors' use of legal information. Then, procedural reforms of the trial process, particularly bifurcation, are discussed. Specific aspects of *Fuentes v. Tucker* (1947) are investigated with regard to the informational dilemmas presented to jurors. Finally, methodological concerns presented by this research are considered.

#### Damage Awards

Early in the development of empirical jury research, Kalven (1958) observed that "questions of damages -- and particularly their magnitude -- do not lend themselves so

easily to discourse" (p. 158). Jurors receive little guidance on assigning damage awards, particularly with regard to the magnitude of the award (Kalven, 1958; Greene, 1989; Greene & Loftus, 1998; Goodman, Greene, & Loftus, 1989). "Jurors must rely on their common sense and experience to translate the plaintiff's loss and harm into financial compensation" (Goodman, Greene, & Loftus, 1989, p. 285). Because all damages must be calculated according to the nuances of each individual case, "the jury is of necessity left free to price the harm on a case by case basis" (Kalven, 1958, p. 160).

Damage awards made by juries become prototypes for subsequent awards that specific cases may be expected to generate. Although less than 10 percent of personal injury cases go to trial, "most students of the system believe that verdicts and awards at trial have important effects on decisions that are made at other stages of the legal process, as well as decisions that are made in the larger society such as whether or not to develop certain products or how safely to drive" (Wissler, Evans, Hart, Morry, & Saks, 1997, p. 182). These concerns are reflected in the work of both researchers (e.g., Greene, 1989; Wissler, Evans, Hart, Morry, & Saks, 1997) and legal scholars (e.g., Kalven, 1958).

### Compensatory Damages

When a defendant has been found liable for damage to the plaintiff, the defendant is assessed compensatory damages. Compensatory damages literally compensate the plaintiff for injury. The primary goals of compensatory damages are to restore the plaintiff to a previous level of functioning and to right the wrongs caused by the defendant (Kalven, 1958); the plaintiff "is not . . . to bear any part of his accident loss himself, if there was a legally wrongful accident" (Kalven, 1958, p. 160). Compensatory damages are intended to return to the plaintiff past, present, and expected future economic and non-economic losses (Wissler, Evans, Hart, Morry, & Saks, 1997).

### Foundations of Compensatory Damages

Compensatory damages are deeply rooted in the concept of reciprocity. Chialdini (1993) defines reciprocity as the belief that "we should try to repay, in kind, what another

person has provided us" (p. 19). Reciprocity appears as a norm across societies and cultures (Gouldner, 1960) and remains a powerful example of cross-cultural psychological similarities among humans. Humans give and take in kind.

Explicit economic repayment for wrongs is seen throughout the foundations of the Judeo-Christian legal tradition. For example, in the Old Testament, monetary compensation is required for property damage (Exodus 22: 1-15, New International Version), assault resulting in personal injury (Exodus 21:18-19), and injury to servants (Exodus 21:26-27). Such ideas have become permanently interwoven into the cultural fabric of western civilization.

### Types of Compensatory Damages

Economic damages. Economic losses are usually defined concretely, most often in terms of medical expenses and loss of income. A legal advocate can define and assign a dollar value to economic losses with relative ease. This dollar value can then be converted to a request for compensatory damages which may be presented to a jury. Economic damages are often referred to as special damages (Wissler, Evans, Hart, Morry, & Saks, 1997) or objective damages, and they are expected to be less variable than non-economic damages.

However, problems can arise even within the assessment of economic damages. "It is only in the case of the wage-earner that economic loss is reasonably clear. As soon as the claimant is a proprietor . . . or a child it is apparent that the jury's task is substantially less limited by objective data" (Kalven, 1958, p. 161). Disability of a child can not be easily translated into a meaningful dollar value in terms of potentially lost wages. Wrongful death presents another challenge to simple assessment of economic damages. In such cases "simplistic estimates of lost income derived by multiplying annual salary by future worklife may be very inaccurate if the major variables that can affect earning capacity are ignored, such as wage trends, productivity rates, fringe benefits, interest rates, inflation, income taxes, and worklife expectancy factors"

(Goodman, Greene, & Loftus, 1989, p. 288). Even though economic damages are expected to be relatively simple, challenging issues in jury decision making often arise.

Non-economic damages. Compared to economic damages, non-economic losses are more difficult to define, justify, and translate into a monetary figure. Consequently, they are far more controversial. Non-economic damages, sometimes called general damages (Wissler, Evans, Hart, Morry, & Saks, 1997) or subjective damages, include such elements as pain and suffering, emotional stress, and impairment of quality of life. Early foundations of non-economic damages appear again in the Old Testament. For example, it is required that anyone causing a married woman to miscarry a pregnancy must be fined "whatever the husband demands and the court allows" (Exodus 21:22). A pregnancy has no clearly defined monetary value, but compensation is still required by law and is adjustable for each individual case. The same difficulties in definition and assessment exist today. Obviously, such dilemmas present challenges to both lawyers who must request a monetary award and jurors who must ultimately decide how much money plaintiffs will receive "to compensate . . . for their pain, suffering, and loss of enjoyment of life" (Wissler, Evans, Hart, Morry, & Saks, 1997, p. 181) and, more specifically, "bodily harm, including pain, disfigurement, and disability; emotional distress, including fear, anxiety, depression, and embarrassment; and loss of enjoyment of life, including limitations on one's lifestyle and resulting feelings" (p. 182). The jury's task with respect to non-economic damages is far less clear than for more objective economic damages. While "medical expense and economic loss do have some objective reality . . . the warrant to add pain and suffering gives the jury immediate freedom to price the injury subjectively" (Kalven, 1958, p. 161). No objective guidelines exist, and jurors are only told to compensate the plaintiff reasonably for these aspects of the injury. Although non-economic damages are more difficult to define than economic damages, they fill a role in returning the defendant to the previous level of functioning.

Severity of injury clearly should drive non-economic damages. While studying several different injuries, Wissler, Evans, Hart, Morry, and Saks (1997) found that severity and duration of injury were the best predictors of non-economic awards. Specifically, the largest contributors to perceptions of severity and duration were the degree of disability and mental suffering. Two components they extracted from their data, visibility and pain, "made no real contribution to awards" (Wissler, Evans, Hart, Morry, & Saks, 1997, p. 195). The relationships between participants' perceptions of various aspects of the plaintiff's injury and overall injury severity and compensatory damage awards were explored in the present research. As a whole, compensatory damages should return the plaintiff to the original level of physical and psychological functioning and should restore the quality of life to a previous level as much as is economically possible.

### Punitive Damages

#### Historical Roots of Punitive Damages

Punitive damage awards have a long and colorful history. Precursors to modern concepts of punitive damages exist even in some of the earliest legal codes. Awards that exceed the degree of actual injury are found as early as the Babylonian Code of Hammurabi in 2000 B.C.E. (Rustad & Koenig, 1993; Sales & Cole, 1984). Other examples appear in the Hittite law around 1400 B.C.E. and the Hindu Code of Manu dated at 200 B.C.E. (Rustad & Koenig, 1993; Sales & Cole, 1984). Although disagreement exists over whether or not Roman law provided punitive damages for some crimes (Sales & Cole, 1984), Roman law as presented in The Twelve Tables around 450 B.C.E. contains requirements of multiple damages with the explicit goal of deterring the wealthy from wanton misconduct, and later Roman codes also include multiple damages for these purposes (Rustad & Koenig, 1993). Punitive damages are also firmly entrenched in the Judeo-Christian tradition.

Both the Old Testament and the New Testament of the Bible provide specific guidelines and examples of punitive awards for various acts. Mosaic law as presented in the Old Testament requires payment above and beyond compensation for the purposes of punishment and deterrence of future wrongdoing. Exodus 22:1 states "If a man steals an ox or a sheep and slaughters it or sells it, he must pay back five head of cattle for the ox and four sheep for the sheep." Exodus 22:4 continues: "if the stolen animal is found alive in [the thief's] possession -- whether ox or donkey or sheep -- [the thief] must pay back double." Exodus 22:9 covers all other cases of "illegal possession" by requiring that "the one whom the judges declare guilty must pay back double to his neighbor." Such damages are applied throughout the Old Testament. For example, King David required payment of four times the value of a stolen lamb (2 Samuel 12:6). The penalties described above are further increased in other texts; Proverbs 6:30-31 requires the payment of seven times the value of stolen goods. In relation to other crimes, Deuteronomy 22:13-19 describes punitive damages that must be paid for slander, and Deuteronomy 22: 28-29 requires punitive damages of 50 shekels of silver for sexually assaulting a virgin not pledged to be married (although the man must now marry the rape victim, and "he can never divorce as long as he lives").

Punitive damages are not limited to the Old Testament. For example, Luke 19:8-9 describes Zacchaeus, a tax collector, joining Jesus's movement, giving half of his possessions to the poor, and declaring that "if I have cheated anybody out of anything, I will pay back four times the amount." Jesus approves of Zacchaeus's referral to Old Testament law, declaring "Today salvation has come to this house." The Judeo-Christian tradition thus provides the legal and moral foundations for the formal rise of punitive damages in English and American common law.

In 1763, an English judge ordered "exemplary damages" to be paid by the government to the editor of The North Briton, an anti-government newspaper (Rustad & Koenig, 1993). The exemplary damages assessed were above and beyond actual damages

as punishment for illegal search and seizure and as a deterrence to future actions (Sales & Cole, 1984). The "English courts employed the remedy from that point on to punish and deter the misuse of wealth and power that threatened the eighteenth-century English social order" (Rustad & Koenig, 1993, pp. 1289-1290). Even though the primary aims of this particular damage award were punishment and deterrence, legal scholars of the day believed that such damages were an acceptable and legal form of personal retaliation which was preferable to vengeance sought by private individuals (Rustad & Koenig, 1993, p. 1290). Cases began to appear in the United States in the eighteenth century. The South Carolina Supreme Court awarded personal "vindictive damages" in 1784, and, in 1791, a New Jersey court explicitly used punitive damages to deter future wrongdoing (Rustad & Koenig, 1993, pp. 1290-1291). However, Sales and Cole (1984) maintain that the first case of punitive damages in the United States was decided in Vermont in 1873. Despite disagreements about dates, scholars agree that the early American courts focused punitive damages on cases involving "willful and wanton indignities" (Rustad & Koenig, 1993, p. 1291), in cases of a defendant acting with "malice, oppression, or gross fraud" (Sales & Cole, 1984, p. 1121), and when a personal insult has been rendered and the plaintiff requires compensation for "humiliation, wounded dignity, . . . and embarrassment" (Sales & Cole, 1984, p. 1121). The psychological construct of revenge and the early emphasis on the vengeful aspects of punitive damages are revisited below. Rustad and Koenig (1993) note "by the end of the nineteenth century, however, the [application of punitive damages] had shifted away from powerful individuals to large corporations" (pp. 1294-1295), and punitive damages were used to establish acceptable standards of conduct and safety for businesses.

#### Vengeance and Its Application to Punitive Damages

In recent American civilization, vengeance has been a taboo topic. The practice of people attempting to right a wrong by taking the law into their own hands is against the law. In earlier periods, injured parties could settle disputes at the corral at high noon, and

revenge was often equated with justice (Kim & Smith, 1993). Today, society seeks justice through the legal system which seeks to avoid vengeance while protecting society as well as punishing and rehabilitating the criminal. However, adherence to the law does not mean that impulses toward vengeance have been eradicated (Jacoby, 1987).

Vengeance can be commonly defined as the infliction of harm in return for perceived injury or insult or as simply "getting back at" another person. Although many psychologists assume that revenge is one source of motivation for human aggression, researchers have devoted little energy to understanding vengeance as such (Stuckless & Goranson, 1992). Vengeance has only recently become a unique topic heading in PsychInfo, and few empirical references are listed under this heading. The following materials explore the construct of vengeance in western culture and the legal system.

Vengeance permeates human life. Development of a comprehensive picture of revenge from cultural, social, legal, and political viewpoints has motivated scholars to investigate the psychological aspects of a topic that is publicly taboo in contemporary society. As the knowledge base grows, humans will better understand the roots and the effects of revenge as well as the possibilities of controlling its occurrence and its consequences. Such understanding may illuminate the transformation of revenge from an explicitly stated motivation for earlier punitive damage awards into modern conceptualizations of punitive damages which emphasize functions of punishment and deterrence while denying vengeance as a factor in punitive awards. Research investigating general attitudes toward vengeance and the specific situations in which revenge is most likely to occur will not only allow psychologists to evaluate the presence of this basic human motive in the context of the modern legal system, it should also contribute significantly to a more civilized, humane, and hopeful social world.

It is important to distinguish vengeance from other related concepts. Other terms often used synonymously with vengeance are retaliation, hostility, reciprocity, and

retribution (Stuckless & Goranson, 1992). Vengeance differs significantly from each of these concepts and is a unique construct in human social relations.

Retaliation and retribution are closest to revenge in common usage, but neither term is an adequate synonym for vengeance. Retaliation is primarily viewed as reasonable and is most often used as a deterrent against future negative actions. However, revenge is by nature personal (Bar-Elli & Heyd, 1988) and may be irrational. Retribution differs from revenge in that it is available in the legal system and is usually limited in its degree. It is most often a response designed to return equal injury to the offending individual. Vengeance frequently involves an escalation of damage beyond the original injury (Kim & Smith, 1993) and, unlike retribution or retaliation, is commonly performed for the purpose of bringing personal relief to the offended individual.

Hostility, aggression, and trait anger differ from revenge because vengeful acts are motivated and justified only in specific situations, while hostility, aggression, and trait anger describe general ways in which individuals interact with the world (Baron & Richardson, 1994; Stuckless & Goranson, 1992). Although hostility, aggression, and trait anger have been used synonymously, each is a distinct construct (Deffenbacher, Oetting, Thwaites, Lynch, Baker, Stark, Thacker, & Eiswerth-Cox, 1996). Hostility is defined as an attitude of negative feelings and evaluations of others (Buss & Durkee, 1957), while aggressiveness originates from the adjective form of aggression and is defined as a tendency to use aggressive behavior, in other words a tendency to harm others intentionally (Baron & Richardson, 1994). Trait anger is defined as "the individual's internalized predisposition to respond with anger across a variety of situations as opposed to situational expressions of anger" (Hong & Withers, 1982, p. 941; see also Spielberger, Jacobs, Russell & Crane, 1983). None of the above constructs sufficiently captures human motivations for revenge.

Lastly, even though reciprocity was the original subheading through which one located the literature on vengeance in Psychological Abstracts, vengeance is not the

negative end of the reciprocity continuum (Stuckless & Goranson, 1992). Unlike negative reciprocity, vengeance is usually of greater intensity than the original offense (Kim & Smith, 1993). Additionally, reciprocity and vengeance differ empirically. Reciprocity is both positive and negative, but individuals who respond in a vengeful manner on vengeance scales do not necessarily make correspondingly extreme responses to items involving positive reciprocation (Stuckless & Goranson, 1992). The absence of correspondence supports the contention that reciprocity and vengeance are different constructs.

### Motivations for Vengeance

Revenge is obviously destructive toward its target, and it is often not adaptive for the individual acting in a vengeful manner. Vengeance may also have irrational and destructive consequences for the person seeking vengeance as well as for the target. For example, while engaging in revenge, one often is "cutting off one's nose to spite one's face." The persistence of vengeance in human society, despite such risks, bespeaks of powerful motives. Revenge fulfills a wide variety of motivational goals including righting perceived injustice, restoring the self-worth of the vengeful individual, and deterring future injustice. Central to the concept of revenge are perceptions of personal harm, unfairness, and injustice and the "anger, indignation, and hatred" associated with the perceived injustice (Kim & Smith, 1993, p. 38; see also Stuckless & Goranson, 1992). The perceived injustice must be righted or undone, and revenge, despite potentially destructive consequences and powerful social taboos, is often seen as an acceptable means of doing so.

Revenge is also tied to the self-worth of the originally offended individual. Often, individuals with little power seek revenge against powerful others even though the act of revenge has overwhelming costs (Kim & Smith, 1993). Revenge may be perceived as the only method through which one may react against perceived injustice. Jacoby (1987) argues that revenge is seen as more characteristic of women than men because throughout

history women have lacked the social power necessary to restore fairness through socially approved channels and have been forced more often than men to resort to covert revenge. It is not only the case that feelings of worth may be regained by the vengeful individual; the person upon whom revenge is taken often gains new respect for the power and value of the vengeful individual (Kim & Smith, 1993). In many cases, the revengeful individual can "retrieve his [or her] status as an equal player. This is also, then, a form . . . of compensation" (Wilson, 1983, p. 523).

Revenge is also seen as a deterrent of future unjust treatment. This is apparently the goal of taking "an eye for an eye" (Deuteronomy 19:19-12). The vengeful individual "sends the message that harmful acts will not go unanswered" (Kim & Smith, 1993, p. 40). Not only is the goal to stop this particular form of maltreatment in the future, it is to deter the offender from wanting to commit such crimes (Wilson, 1983). In addition to deterring the original offender, another goal of vengeance is also to stop other potential offenders from committing similar crimes and from wanting to commit similar crimes (Wilson, 1983); it is here that the overlap of vengeful motives with the functions of punitive damages is most obvious (see e.g., Owen, 1994; Rustad & Koenig, 1993; Sales & Cole, 1984). The vengeful motives of deterrence, restoration of self-worth, and elimination of perceived injustice are persistent human motives, surviving despite social taboos and legal denials. Such motives are unlikely to fade into social obscurity. Vengeance is most likely here to stay in western culture; researchers must therefore achieve a better understanding of factors that affect human attitudes toward revenge.

#### Western Religious Perspectives toward Vengeance

Jacoby (1987) notes that "the very word 'revenge' has pejorative connotations" (p. 4), and, as a motive, it is publicly rejected by modern society. Despite contemporary rejection, vengeance is most likely as old as human social behavior, and it has a long, varied, and colorful history in both religious and secular realms. As noted above, the cultural fabric of western civilization is driven to a large extent by the Judeo-Christian

religious tradition. This tradition has shaped and been shaped by western assumptions about divisions between mind and body and between self and society as well as about modes of social interaction (Markus, Kitayama, & Heiman, 1996). The Christian religion and the Jewish heritage of Western culture provide many ideas regarding vengeance.

The Old Testament presents several instances of revenge justified by humans and by God. With favor from God, Samson strikes down "one thousand men" for revenge after the Philistines burned two of his family members (Judges 15). Humans may also call out for God to seek vengeance for their innocent suffering (see Carlson, 1982). Samson, after being blinded by the Philistines, calls upon God to "let me with one blow get revenge on the Philistines for my two eyes" (Judges 16:28), and God allows him to destroy the temple of the Philistines, killing 3000 men, women, and children. Even God instructs people to "purge the evil from among you . . . Show no pity: life for life, eye for eye, tooth for tooth, hand for hand, foot for foot" (Deuteronomy 19:19-21) and also to allow murderers to be killed by "the avenger of blood" (Numbers 35:19). God, as such, is also vengeful, "punishing the children for the sin of the fathers to the third and fourth generation of those who hate [God]" (Exodus 20:5). A striking example is set forth in Genesis 4:16. For the sin of Eve, all subsequent women must bear children in intense pain and must submit to their husbands. With few exceptions (e.g., Leviticus 19:18 states "Do not seek revenge or bear a grudge against one of your people, but love your neighbor as yourself."), the Old Testament presents a God whose vengeance is to be known and feared.

The New Testament introduces a different approach to God and vengeance. Jesus tells the disciples, "You have heard that it was said, 'eye for eye and tooth for tooth.' But I tell you, do not resist an evil person. If someone strikes you on the right cheek, turn to him the other also" (Matthew 5:38-39). Jesus also describes a loving God and invites people to love their neighbors and to strive "to be perfect, therefore, as your heavenly Father is perfect" (Matthew 5:48). The new view presented by Jesus, however, is not

completely uniform. Jesus approached a fig tree for food early one morning, but upon finding that it had no fruit, he cursed the fig tree. His vengeance took effect immediately, and the tree withered (Matthew 21:18). This anomaly in Jesus's treatment of revenge complicates the Biblical justification of vengeance.

These varying concepts of revenge across both testaments of the Bible have resulted in a cultural confusion regarding the Christian position on vengeance. An example may be found within the history of Christian treatment of Jews. While accepting the Gospel presentation of the words of Jesus as valid Christian doctrine (including the manner in which Jesus condemns revenge), many Christians have simultaneously justified revenge against the entire Jewish nation by referring to the last interview between Jesus and Pontius Pilate. Pilate finds Jesus innocent, but the Jewish crowd demands and takes responsibility for Jesus's crucifixion: "All the people [in the Jewish crowd] answered 'Let his blood be on us and on our children!'" (Matthew 27:25). These verses have been used throughout history to justify continuing persecution of the Jewish people (see Ranke-Heinemann, 1992; Viney & King, 1998). Although the words of Jesus seem to challenge the very notion of vengeance, Christians have struggled with the concept through history and continue to struggle with it today.

### Legal Perspectives

In popular culture, vengeance is frequently equated with justice; however, this comparison is not accurate. Justice can be sought through legal means, but revenge cannot. Francis Bacon (1857) noted that "revenge is a kind of wild justice, which the more Man's nature runs to, the more ought the law to weed it out" (p. 46). Americans seek justice and retribution in courts of law, and, while "justice is a legitimate concept in the modern code of civilized behavior[,] . . . vengeance is not" (Jacoby, 1983, p. 1). Anderson (1987) argues that "while sentencing a convicted criminal, the state professes such motives as protection of the populace, rehabilitation, and punishment, but not vengeance" (p. 13). The law is not explicitly involved in the business of revenge. Many

victims of burglary possess notions of justice and fairness which often include vengeful motives such as punishment or punishment in addition to rehabilitation of the offender or compensation for losses (Umbreit, 1989). Despite sentencing defendants in ways that coincide with these vengeful motives, the law maintains its independence from revenge.

Prior to the work of Jeremy Bentham and others in the secular legal system, punishments for crimes were decided through intuition. Intuitionism involved determining the degree to which a crime violated an absolute moral law and punishing the accused accordingly (Viney & King, 1998, p. 135). For example, homosexuality was punishable by execution, while embezzlement of large sums of money was only lightly punished (see Viney & King, 1998, pp. 135-136 for an overview). Bentham fought for a utilitarian notion of criminal law in which the punishment would fit the crime and not exceed the damage done by the crime (Bentham, 1948; Mack, 1963). The history of punishment in Western civilization has been a history of reform and a move away from revenge for the sake of society or the sake of God (see Earle, 1896) and toward a more rehabilitative view of justice (Viney & King, 1998, pp. 135-136). Even though the legal system has removed vengeance from its concept of punishment, modern societies are still ambivalent about the tensions between justice and revenge. Many of the cases decided in the criminal justice system reflect a non-vengeful legal system struggling to deal with vengeful personal motives for crime (see Jacoby, 1987; Umbreit, 1989; Kim & Smith, 1993).

Despite the current social and legal taboo surrounding revenge, many argue that it still exists in today's legal system. "Whereas in an earlier period the injured party might go after an enemy with a sword or gun, a lawsuit is now the weapon of choice for most people" (Anderson, 1987, p. 13). Scholars of civil law maintain that, in addition to punishment and deterrence, punitive damages may function "to provide retribution to the victim of an aggravated wrong . . . [and] to allow a person injured by the wanton misconduct of another to vent his [or her] outrage by extracting from the wrongdoer a

judicial fine" (Owen, 1994, p. 375). However, punitive damages are presented as rational retribution rather than personal vengeance because punitive damages "have an important retributive role in serving to force flagrant offenders to repay their 'debts' to -- and restore the equality of -- both their victims and society" (Owen, 1994, p. 377). The term "retribution" is used to avoid the need for terms such as "vengeance" in cases involving compensation of the victim and society at large. While the professed missions of the legal system regarding personal vengeance are clear, the practical uses of the system are not clear, particularly with regard to punitive damages.

#### Potential Indices of Vengeful Behavior

Many diverse factors may influence an individual's attitude toward vengeance. Variables discussed below include age, gender, and the type of relationship between the individuals involved.

Age Older participants have been found to be less vengeful (Cota-McKinley, Woody, & Bell, 1998). Even when comparing first-year college students with juniors and seniors the difference is striking (Cota-McKinley & Woody, 1998). As people age, they may become more likely merely to think about, rather than act out, their vengeful ideas, or people may simply become less vengeful with age.

Gender It was expected that males would be more vengeful than females. As noted above, though, societal norms surrounding revenge portray women as more vengeful than men (Jacoby, 1987). Jacoby (1987) attributes this perception to the power difference between the genders in western society and believes that research would not reveal a significant difference in attitudes toward vengeance if the genders had equal power in society. However, early research lends some support to the contention that men have more positive attitudes toward vengeance (Stuckless & Goranson, 1992). Males score higher on general measures of aggression, and a greater acceptance of interpersonal aggression may correlate with acceptance of attitudes related to revenge and participation in vengeful behaviors (see e.g., Stuckless & Goranson, 1992). Males are more likely to

have homicidal fantasies -- thoughts of killing another human being -- and males also report longer and more detailed homicidal fantasies (Kenrick & Sheets, 1993).

Type of relationship. Cota-McKinley, Woody, and Bell (1998) found the degree of vengeance to be related to the relationship between the offended party and the target of the revenge. Participants were willing to be more vengeful in relationships they did not choose (i.e., with a stranger or co-worker) than they were in relationships that they chose (i.e., with a romantic partner or a friend), and participants were most vengeful to co-workers, an unchosen relationship in which responsibilities are shared (Cota-McKinley, Woody, & Bell, 1998). These findings are in line with the results of previous work on homicidal fantasies (Kenrick & Sheets, 1993). Women report a greater proportion of homicidal fantasies about spouses and family members, men report similar numbers of fantasies about significant others and family members, and men report a greater proportion of fantasies involving co-workers and strangers (Kenrick & Sheets, 1993). Assuming that the plaintiff and the defendant in a lawsuit are parties who did not know each other before the accident and that the defendant, if found liable, would have financial responsibility for the future quality of life of the plaintiff, a high level of vengeance could be expected.

Vengeance is a powerful motivation in human behavior. The legal system, despite efforts to the contrary of legislators and reformers, may continue to be a legitimized means of seeking revenge, particularly through requests for punitive damages. The punitive damage award has its roots in interpersonal vengeance, and such roots may still be present in pragmatic uses of punitive damages, despite legal scholars' attempts to purge vengeance from punitive damage awards (Rustad & Koenig, 1993; Sales & Cole, 1984).

#### Modern Functions of Punitive Damages

If a defendant has been found liable and assessed compensatory damages, the plaintiff may request punitive damages. Although the legal wording varies from state to

state (Rustad & Koenig, 1993), punitive damages are generally assessed only in cases in which the defendant's behavior was malicious, willful, wanton, oppressive, or outrageous. Most legal scholars (e.g., Gulligan, 1990; Rustad & Koenig, 1993; Sales & Cole, 1984) focus on two main functions of punitive damages. First, punitive damages punish the defendant for wrongdoing. Second, punitive damages deter the defendant from future inappropriate behavior. Not only is the defendant deterred from such actions, other companies or individuals may also be deterred from similar actions if there is a significant possibility of punitive damage awards. Three other functions of punitive damages have been identified by Owen (1994). In addition to punishment and deterrence, punitive damages educate the defendant about what constitutes inappropriate behavior. Again, other companies and individuals may also be vicariously educated about the components and effects of such actions. Punitive damages also help enforce the law. For many individuals, "punitive damages are viewed as a last defense against the wrongdoing of large and powerful corporate actors unrestrained by weak administrative controls and the limits of the criminal justice system" (Ostrom, Rottman, & Goerdt, 1993, p. 237). Finally, and, as noted above, most controversially, punitive damages may provide retribution for the plaintiff (Owen, 1994; Hastie, Schkade, & Payne, 1999b, 1999c). As shown above, the vengeful aspect of punitive damages was part of the original notion of exemplary damages, and vengeful motivations may still be evident in punitive damage awards.

The magnitude of punitive damages should, in principle, be most directly related to the accepted functions of such damages. The degree to which the defendant should be punished and deterred should be the primary determinant of punitive damage awards. Additionally, the defendant's perceived need to be educated, as well as the degree to which the defendant has broken the law or inspired retribution should be secondary determinants of the punitive damages award. Such factors are driven by the degree to which the defendant's actions were malicious, willful, wanton, and egregious. However,

a second factor should also drive punitive damage awards: the defendant's ability to pay. For punitive damages effectively to fulfill the above goals, they must be of sufficiently high amounts as to be significant to the defendant. For example, assessing a graduate student \$10,000 in punitive damages would destroy that student's life, but a \$10,000 punitive award would be meaningless to Microsoft. Punitive damages should be influenced only by the defendant's conduct and the defendant's wealth, and should remain unaffected by the damages suffered by the plaintiff.

#### Distinct Functions of Punitive and Compensatory Damages

Compensatory and punitive damages serve distinct functions. As stated above, compensatory damages are intended literally to compensate the plaintiff for injury. Such damages serve to restore the plaintiff to a previous level of functioning by compensating for past, present, and expected future economic and non-economic losses. Therefore, once the defendant has been found liable for compensatory damages, these damages should only be affected by the severity of the injury suffered by the plaintiff. Punitive damages, in turn, should deter and punish the defendant for egregious and gross misconduct and should be affected only by the defendant's conduct and the defendant's wealth. However, "at times [the jury] makes distinctions the law chooses to ignore and at times [the jury] ignores distinctions the law chooses to make" (Kalven, 1958, p. 165). Researchers have raised concerns about jurors' ability to distinguish between information relevant to compensatory awards and information relevant to punitive awards (Kalven, 1958; Greene, 1989).

#### Fusion

The term "fusion" as used in this context means the process by which jurors inappropriately use legally irrelevant information to make decisions. Legally and theoretically, the issues of liability, compensatory damages, and punitive damages are distinct. However, jurors may not be able functionally to separate these decision processes (see Greene, 1989, for an overview).

Jurors may fuse information relevant to liability with information about compensation. This could occur in two ways. First, liability information could influence compensatory damage awards. A defendant whose culpability is clear could pay more than a defendant whose liability for the plaintiff's injuries is questionable. Second, the severity of the plaintiff's injury could influence the likelihood that a defendant will be found to be liable. Evidence exists for both of these possibilities.

Fusion of liability to compensatory damages. As early as the 1950's, Kalven (1958) expressed concern that information about liability may influence compensatory damages; his concerns were, and still are, valid. Broeder (1959) found compensatory damage awards to vary significantly with the strength of liability evidence against the defendant. When the defendant's liability was questionable, compensatory awards were lower than when the defendant's liability was clear. Chapman and Bornstein (1996) as well as Baron and Ritov (1993) also found that if negligence was clearly established, jurors made larger compensatory awards than when negligence was not clearly established. In studies of comparative negligence, which "allows jurors to apportion blame between the parties and to reduce the plaintiff's compensatory damages accordingly" (Feigenson, Park, & Salovey, in press, p. 3), perceived plaintiff fault is negatively correlated with compensatory awards before compensatory damages are legally reduced. In other words, jurors inappropriately reduce compensatory awards to plaintiffs who share blame for an accident even before these awards are appropriately discounted by the court proceedings (Feigenson, Park, & Salovey, in press). Greene (1997) noted that jurors were more likely to award compensatory damages when a defendant's conduct was described as more negligent and the defendant appeared to be more likely to be liable. In the decision processes of jurors, "damages awards may do more than compensate the plaintiff; they may also reflect the jury's sentiments about the defendant's culpability" (Greene, 1989, p. 233). These concerns will be explored in more detail below and were investigated in the present research, particularly with regard to

cases in which irrelevant liability information is presented to jurors deciding compensatory damages (e.g., *Fuentes v. Tucker*, 1947; see below).

Fusion of compensatory damages to liability. Compensatory damages information could also affect judgments of liability. For example, Chapman and Bornstein (1996) found that magnitude of ad damnum, the plaintiff's monetary request for the size of the damage award, influenced participants' likelihood to find the defendant liable. Researchers have also found support for the contention that injury severity affects liability judgments. Bornstein (in press) as well as Wissler, Evans, Hart, Morry, and Saks (1997) demonstrated that more severely injured plaintiffs are more likely to be awarded compensatory damages than less severely injured plaintiffs when liability information is held constant. Greene (1997) also found defendants to be more likely to be judged as liable when the plaintiff was severely injured than when the plaintiff was only mildly injured.

Hindsight bias. Fusion of compensatory damage information into liability judgments is best framed in the context of hindsight bias. "Twenty-twenty hindsight seems to be a robust phenomenon" (Fiske & Taylor, 1991, p. 376). When the outcome of a past action is known, the perceived likelihood of the outcome is greater than if the outcome is unknown (Fischhoff, 1975; Christensen-Szalanski & Willham, 1991). Hindsight bias may also be defined as "the tendency for people with outcome knowledge to believe falsely that they would have predicted the reported outcome of an event" (Hawkins & Hastie, 1990, p. 311). Christensen-Szalanski and Willham (1991) performed a meta-analysis of 122 studies of the hindsight bias and concluded that its effects are small but reliable. If participants know which outcome actually occurred, then the chain of events leading up to the outcome appears to be most likely to result in the outcome given (Fischhoff, 1975). Hindsight bias can be implicated in perceptions of criminal trials. La Bodenhausen (1990) found that participants' perceptions of the guilt of a defendant were influenced by the outcome of the trial. LaBine and LaBine (1996) found jurors to

be influenced by the hindsight bias in cases involving criminal charges against a psychiatrist whose patient became violent. Additionally, Bryant and Brockway (1997) asked participants to evaluate the probability that O. J. Simpson would be convicted of murder. After Simpson's acquittal, participants' perceptions showed a significant hindsight bias. Similar results may be found in the work of Woody (1996), who found that mock jurors' willingness to convict O. J. Simpson was high immediately after the verdict but that mock jurors drawn from the same pool of participants were significantly less likely to convict Simpson two or four weeks after the verdict. Hindsight bias has clear implications in civil trials as well as criminal trials.

When deciding liability for an accident, jurors must evaluate the likelihood of the accident taking place in light of the precautions the defendant did or did not take to prevent the accident from occurring. A civil case would not go to trial unless an injury or other negative outcome has occurred. Therefore, jurors must make judgments about the defendant's behavior when they know the outcomes of such behavior, and jurors' hindsight perspective cannot be ignored. For example, Casper, Benedict and Perry (1989) found that participants' perceptions of a potentially illegal police search were influenced by the final outcome of the search. Compared to conditions in which participants were given either no outcome information or were told that the search yielded no evidence, when they were told that police found incriminating evidence, participants were less likely to find the police department liable for damages, and they awarded lower compensatory and punitive awards (Casper, Benedict, & Perry, 1989). Concerns about hindsight bias are present in civil judgments of liability (Casper, Benedict, & Perry, 1989; Kamin & Rachlinski, 1995) and in medical malpractice cases (Wexler & Schopp, 1989). Outcome information relevant to compensatory damage awards may fuse into jurors' judgments of liability.

The hindsight bias is resilient and difficult to eliminate (see Arkes, 1989; Arkes, Faust, Guilmette, & Hart, 1988; Casper, Benedict, & Perry, 1989; Christensen-Szalanski

& Willham, 1991; Davies, 1987; Fischhoff, 1975; Kamin & Rachlinski, 1995; LaBine & LaBine, 1996; Mazursky & Ofir, 1996; Ofir & Mazursky, 1997; Pohl & Hell, 1996; Stallard & Worthington, 1998; Wasserman, Lempert, & Hastie, 1991; Wexler & Schopp, 1989). Several debiasing techniques have been suggested and attempted outside of legal settings in order to reduce hindsight bias. Simply providing participants with information about the nature of hindsight bias has been generally unsuccessful at eliminating hindsight bias (e.g., Pohl & Hell, 1996). However, asking participants to explain how outcomes other than the one reported may occur has been somewhat successful at reducing hindsight bias (Arkes, Faust, Guilmette, & Hart, 1988). Additionally, Davies (1987) questioned participants about the likelihood of various outcomes before participants learned the actual outcomes of a series of events. He found that reminding participants of the reasons they provided to support their outcome estimates during the foresight phase of his experiments could reduce hindsight bias; however, participants who reviewed the reasons for their likelihood estimations given in foresight conditions did not show less hindsight bias than participants who had to explain how other, nonreported outcomes may have occurred (Davies, 1987). Applying either approach to jurors in legal proceedings presents insurmountable legal and logistical challenges. Two additional possibilities for eliminating general hindsight bias involve participants' possible reactions to the outcome of a series of events and participants' judgments of the cause of the outcome. If participants are highly surprised by the outcome, hindsight bias may be eliminated (Mazursky & Ofir, 1996; Ofir & Mazursky, 1997). Additionally, if events are judged to have occurred by chance (e.g., by an earthquake), participants are unlikely to show hindsight bias (Wasserman, Lempert, & Hastie, 1991). However, neither cases in which the outcome did not obviously follow the events which preceded it nor cases in which the causes of the outcome are obviously random are likely to go to trial. Effects of hindsight bias remain conceptually and pragmatically difficult to eliminate; therefore, hindsight bias presents constant difficulties in the civil legal system.

Due to the pervasive nature of the hindsight bias within the civil legal system, different debiasing approaches have been attempted with varying success. Kamin and Rachlinski (1995) asked participants to review the likelihood of a natural disaster and the need to take preventive measures from either a foresight condition (asking participants to assume they are part of a city planning committee and to evaluate the need for precautions against a possible flood) or a hindsight condition (asking participants to assume they are part of a jury and to evaluate the need for precautions against a recent flood). Only 24% of the participants in the foresight condition thought the precautions were necessary, while 56.9% of the participants in the hindsight condition thought the precautions were necessary (Kamin & Rachlinski, 1995, p. 98); the hindsight bias was obvious in their data. Kamin and Rachlinski (1995) also used a third condition, hindsight plus debiasing techniques, and found that their debiasing techniques, having the judge ask "the participants to recognize the influential effects of hindsight and to consider alternative outcomes as had the city in foresight" (p. 93), had no impact on the effects of hindsight bias. Judgments of liability based on prior conduct were influenced by outcome information. However, Stallard and Worthington (1998) used a debiasing technique in which the defense attorney presented mock jurors with instructions to decide probability of the accident from a foresight instead of a hindsight perspective. In contrast to similar debiasing research outside of legal settings (e.g., Pohl & Hell, 1996), participants showed reduced effects of the hindsight bias on liability decisions. Further research is required to replicate the results of Stallard and Worthington (1998) and to investigate other possible methods for reducing hindsight bias. Psychological researchers investigating legal issues acknowledge the effects of the hindsight bias, and, despite varying success of ameliorative suggestions, hindsight remains the most parsimonious explanation for possible fusion of outcome information relevant to compensatory damage awards into jurors' liability judgments.

Challenges to fusion of liability and compensatory damages. However, evidence also exists that jurors may not fuse liability and injury information. Wissler, Evans, Hart, Morry, and Saks (1997) reported that information about defendant conduct relevant to liability decisions did not fuse to injury ratings; defendant conduct explained only 6% of the variability in compensatory awards. In an early investigation, Green (1967) reported that degree of injury did not influence the likelihood of the defendant being found liable. Additionally, Thomas and Parpal (1987) determined that severity of injury did not drive perceptions of plaintiff or defendant fault. Research findings challenge the fusion of compensatory damages and liability information. The issue of what determines whether fusion will or will not occur remains unresolved.

#### Fusion of Compensatory and Punitive Damages

Jurors may also fuse decision information when considering compensatory and punitive damage awards. There are two possibilities for inappropriate use of damage award information. First, evidence relevant to compensatory damages could affect punitive damage awards. In other words, the severity of the plaintiff's injury could influence punitive damages. Second, evidence relevant to punitive damages could affect compensatory damage awards in one of two ways. Defendant conduct could affect compensatory awards such that severely malicious conduct on the part of the defendant would result in higher compensatory damage awards. Also, defendant wealth could affect compensatory awards. Wealthier defendants could be assessed higher compensatory damages; a "deep-pockets" bias may exist.

Compensatory damages fusing to punitive damages. Investigations into the fusion of compensatory damage information into punitive damage awards have yielded mixed results. Cather, Greene, and Durham (1996) report no effect of injury severity on punitive awards. In their study, jurors appropriately used information about injury severity to make compensatory awards, and appropriately ignored severity of injury information when making punitive damage awards. Similar results can be found in the

work of Hastie, Schkade, and Payne (1999a). Instead of manipulating injury severity, they explored the same construct by changing the severity of environmental damage caused by a toxic herbicide spilled due to a locomotive accident. The degree of damage had no effect on punitive awards (Hastie, Schkade, & Payne, 1999a).

These results are not undisputed. Research on the hindsight bias predicts fusion of outcome information into perceptions of action information. Such "outcome bias" (Arkes, 1989) may influence judgments of actions based on the quality of the consequences. For example, when practicing anesthesiologists judged appropriateness of care for a series of cases involving adverse outcomes, the severity of the outcome (temporary or permanent injury) influenced participants' perceptions of the appropriateness of care (Caplan, Posner, & Cheney, 1991). In the legal arena, the hindsight bias predicts that outcome information in the form of severity of injury would influence jurors' perceptions of the original accident. More specifically, severe injuries would cause jurors to perceive the defendant's behavior leading to the accident as more severe. Archival research may support such contentions; Koenig and Rustad (1993) found that punitive damages were awarded in products liability cases only when the plaintiff was seriously injured. Empirical research lends evidence to such possibilities. Bornstein (in press) noted that injury severity affects damage awards not only when jurors compensate the injured party but also when jurors are told the damage award will go to the government. When making an award to the government and not directly to the plaintiff, the plaintiff could not be compensated, but the defendant is punished. When making damage awards for punishment, participants were influenced by the severity of the plaintiff's injury. Bornstein (1998) notes that "future research is needed in which participant-jurors award damages in both high- and low- severity cases where the defendant's liability has already been established" (p. 22). Additionally, Hastie, Schkade, and Payne (1999b) found jurors using punitive damages to compensate the plaintiff. Although their study did not involve any manipulation of accident severity, their

participants reported inappropriately using punitive damages to achieve compensatory goals related to the plaintiff's injuries. Hastie, Schkade, and Payne (1999a) resonate to Bornstein's (in press) contention as they reflect on their own findings that punitive damages are unaffected by accident severity: "some non-effects in our experiment surprised us. Our manipulation of the magnitude of the damage . . . did not have reliable effects on our subjects' judgments. But, we are not convinced that this factor should be ignored in future research" (p. 22). These possibilities were explored in the present research.

Punitive damages fusing to compensatory damages: Conduct. Evidence pertaining to punitive damages could affect compensatory awards. This may occur when the reprehensibility of a defendant's conduct influences compensatory damage awards. Holding severity of plaintiff injury constant, a highly malicious defendant may be assessed higher compensatory awards than a merely negligent defendant. Although this construct has received only a small amount of empirical attention, early results do not support the contention that jurors misuse information about defendant conduct to decide compensatory damages. Cather, Greene, and Durham (1996) as well as Greene, Woody, and Winter (1998) found that the degree of reprehensibility of a defendant's malicious conduct does not affect compensatory damage awards.

Punitive damages fusing to compensatory damages: Wealth. Fusion of punitive damage award information into compensatory damage awards would also occur if jurors used information about the defendant's wealth to decide compensatory damages. Such concerns have motivated substantial legal reform. For example, Colorado forbids information regarding defendant wealth to be presented in the trial in any form. Federal Rules of Civil Procedure allow bifurcation of compensatory and punitive damage awards (see below) largely for these reasons.

Concerns exist among legislators and businesses that jurors will be more likely to find wealthy defendants liable and will assess larger compensatory awards against

wealthy organizations and/or individuals simply because of an obvious ability to pay, and extensive empirical research has been conducted to investigate this possibility (Hans & Ermann, 1989; MacCoun, 1996; Vidmar, Lee, Cohen, & Stewart, 1994). Archival research lends support to such concerns. Chin and Peterson (1985) studied civil verdicts in Cook County, Illinois, and found that corporate or health care provider defendants paid significantly more than individual defendants in similar cases. In a study of civil jury trials taking place between 1959 and 1984 in Cook County, Illinois and San Francisco, California, Peterson (1986) found that "government or business defendants were assessed 30 to 50 percent more than individual defendants when plaintiffs had similar injuries and brought the same type of lawsuit. This 'deep-pocket' effect was even greater if plaintiffs were seriously injured: businesses then paid 2-1/2 times as much as individuals did in similar cases" (pp. 2-3). Such findings indicate serious bias in the legal system. Indeed, "it is unjust to allow the defendant's ability to compensate an injured party to influence the evaluation of whether the appropriate standards were met. Similarly, it is unjust to award compensation in excess of true losses solely because the plaintiff is needy and the defendant can afford to pay" (MacCoun, 1996, p. 124).

However, despite the appearance of differential treatment, empirical research challenges the deep-pockets hypothesis. MacCoun (1996) argues that the deep-pockets hypothesis is not a reflection of wealth but of corporate identity. He maintains that "it is by no means clear that persons and corporations are meaningfully comparable" (p. 123). MacCoun (1996) consistently found that corporations are more likely than individuals to be found liable and are assessed higher damage awards than individuals. He concludes that corporations are held to higher standards of behavior and safety than are private citizens. Hans and Ermann (1989) lend support to MacCoun's (1996) research. Their earlier work found that, for identical actions, corporations were judged as more reckless and morally wrong than individuals. Additionally, jurors in the Hans and Ermann (1989) research assessed higher compensatory awards, particularly for non-economic damages

such as pain and suffering, against corporations than against individuals, and jurors were more likely to suggest criminal charges against "The Jones Corporation" instead of "Mr. Jones" (the individual) when defendant wealth and conduct were held constant.

Bornstein (1994) found high-status defendants more likely to be found liable, but the effect did not carry over into damage awards; high-status defendants were not assessed higher compensatory awards or higher punitive awards. Vidmar, Lee, Cohen, and Stewart (1994) found no deep-pockets effect in comparisons between automobile accidents and medical malpractice. Corporate identity appears to be more important than wealth in determining damage awards. Furthermore, when using three cases depicting corporate defendants, Greene, Woody, and Winter (1998) found that information pertaining to wealth of the defendants was appropriately used by jurors when deciding punitive damages but was appropriately ignored by jurors when deciding compensatory damages. Within either corporate or individual status, wealth does not appear to affect compensatory damage awards inappropriately. However, reformers (e.g., Thompson, 1997) continue to fear such effects.

#### Other Sources and Effects of Extra-Legal Information

Pretrial publicity. Despite the American ideal of a legal system in which issues are decided via evaluation of only those factors that are legally relevant, "there is . . . a deep public awareness of the role of non evidential factors that inevitably influence legal decision processes" (McNamara, Vattano, & Viney, 1993, p. 575). Public beliefs about the jury-based legal systems have long included such concerns. For example, even Watson remarks to Holmes that, despite the evidence against the defendant, "surely . . . the man's appearance would go far with any jury?" (Doyle, 1905, p. 39). Pretrial publicity is one such non evidential factor.

Researchers investigating effects of pretrial publicity in the courtroom have reached a general consensus that the media can bias jurors by providing additional and potentially partisan sources of information (e.g., Borgida, DeBono, & Buckman, 1990;

Burke, 1998; Carroll, Kerr, Alfini, Weaver, MacCoun, & Feldman, 1986; Davis, 1986; Dexter, Cutler, & Moran, 1992; Fulero, 1987; Greene, 1990; Greene & Loftus, 1984; Greene & Wade, 1988; Hans & Dee, 1991; Hoiberg & Stires, 1973; Kerr, 1995; Kramer, Kerr, & Carroll, 1990; Loftus, 1979; Moran & Cutler, 1991; Ogloff & Vidmar, 1994; Otto, Penrod, & Dexter, 1994; Ridley, 1998; Riedel, 1993; Roberts & Doob, 1990; Sue, Smith, & Gilbert, 1974; Sue, Smith & Pedroza, 1975; Woody, 1994, 1996). Concerns about extra-legal sources of information in the form of pretrial publicity are also concerns for the public, as shown by the anxiety over the search in Los Angeles County for elusive impartial jurors to serve on the O. J. Simpson case.

The ubiquity of pretrial publicity makes it challenging to avoid, and efforts to eliminate its effects after jurors have arrived in the courtroom have met with little success. A number of remedies have been suggested including extensive jury selection and voir dire to eliminate biased jurors, judicial admonitions to ignore biasing media input, encouraging extensive jury deliberation, and continuance, delaying the trial until the publicity becomes less popular. None of these methods are particularly effective.

A time-consuming and thorough jury selection process by lawyers, voir dire, produces juries that are significantly different from juries selected at random (Diamond & Zeisel, 1974) although some researchers (e.g., Mahoney, 1982) suggest that voir dire may not be effective at identifying biased jurors. However, even when the goal of the voir dire process is to eliminate jurors with biases derived from the media, the selected jurors still show bias (Dexter, Cutler, & Moran, 1992).

Judicial admonitions and jury deliberation are ineffective at ameliorating the impact of pretrial publicity. Pretrial publicity continued to influence jurors despite explicit judicial instructions to ignore information learned from the media (Kramer, Kerr, & Carroll, 1990; Sue, Smith, & Gilbert, 1974). Jury deliberation does not reduce the effects of pretrial publicity (Kramer, Kerr, & Carroll, 1990), and in some cases "rather

than attenuating publicity-induced bias, jury deliberation . . . exacerbated it" (Kerr, 1995, p. 258).

Only continuance, the delay of a trial until the publicity surrounding the case dies down, has any empirical support for reducing the effect of pretrial publicity. Kramer, Kerr, and Carroll (1990) found that continuance reduced the effect of factual pretrial publicity but was ineffective at eliminating emotional pretrial publicity. In the real world, factual and emotional aspects of extra-legal information are hopelessly intertwined; therefore, despite being the only effective option, continuance can at best be only a partial solution.

Additional information not only has an impact on jurors, but its impact is difficult to eliminate. Even jurors who report being impartial and unbiased by pretrial publicity still retain biases (Moran & Cutler, 1991; Sue, Smith, & Pedroza, 1975). Not only is prejudicial publicity about the case in question difficult to avoid, publicity about unrelated cases also influences outcomes in the courtroom. General pretrial publicity which "refers to trial-related information that is prominently in the news and that affects jurors in wholly unrelated cases" (Greene & Wade, 1988, p. 123) can affect jury behavior. Such effects have been demonstrated in laboratory simulations using criminal cases (e.g., Greene & Wade, 1988) and civil cases (Loftus, 1979) as well as in studies evaluating the relationship between knowledge of an actual case portrayed in the media and verdicts rendered in a simulated trial (Greene & Loftus, 1984). The enduring effects of pretrial publicity lend credence to the possibility that irrelevant liability information may bias jurors in compensatory damage awards.

Inadmissible evidence. Other sources of extra-legal information may influence the outcomes of a case. Jurors often use evidence from a defendant's past behavior to reach a decision in a current case. This can happen both with official records of past behavior such as evidence of prior convictions as well as with unofficial records of past behavior (e.g., sexual assault victims who did not press charges at the time may come

forward as witnesses if the perpetrator is on trial for sexually assaulting another victim). This extra-legal testimony, recently allowed in the Marv Albert case, has significant effects on trial outcomes (Morier & Abukhdair, 1998). Even judicial admonitions are not effective in preventing jurors from using inadmissible prior record evidence (Greene & Dodge, 1995).

Evidence or testimony ruled inadmissible can still influence jurors (e.g., Cox & Tanford, 1989; Fein, McCloskey & Tomlinson, 1997; Kassin & Sommers, 1997; Kerwin & Shaffer, 1994; Landsman & Rakos, 1994; London, Nunez, & Shoefelt, 1998; Pickel, 1995; Rind, Jaeger, & Strohmets, 1995) although some conditions may make jurors more able to disregard inadmissible information. For example, Cox and Tanford (1989) found that inadmissible evidence influenced civil trials unless curative instructions were given to jurors. However, Kassin and Sommers (1997) noted that jurors are likely to disregard inadmissible testimony if such testimony is essentially unreliable but not if such testimony is described as a violation of legal principles. Pickel (1995) also found that a legal explanation of the inadmissibility of evidence did not influence jurors' ability to disregard such evidence. Jury deliberation can attenuate the effects of inadmissible evidence (Kerwin & Shaffer, 1994; London, Nunez, & Shoefelt, 1998), and making the jurors suspicious of the advocates' motives for mentioning inadmissible evidence can reduce the likelihood of such testimony having an effect (Fein, McCloskey, & Tomlinson, 1997). In civil trials, judicial instructions (to disregard a legal requirement that the jury's compensatory award must be tripled in anti-trust cases) were ineffective; jurors inappropriately reduced awards despite admonitions not to do so (Diamond & Casper, 1992). Generally, effects of inadmissible information are enduring; in a study of actual jurors and practicing judges, biasing materials influenced decisions regardless of whether the biasing material was ruled admissible or inadmissible (Landsman & Rakos, 1994).

Despite being inadmissible and often irrelevant, extra-legal information, in the form of pretrial publicity, inadmissible testimony, and inadmissible prior record evidence influences both civil and criminal courtroom proceedings. Impacts of such information endure despite efforts to reduce its effects and to eliminate it from the courtroom. Legal scholars and psychological researchers have attempted to rid the courtroom of inappropriate influences through alterations of courtroom procedures and through legislative reform of the legal process. Suggested legal reforms, particularly bifurcation of trial issues, are discussed below.

#### Legal Reforms of Compensatory and Punitive Damages

Legal reformers have targeted the non-economic aspects of compensatory damages. Juries are free to decide damage awards as they see fit. Such freedom is associated with accusations that juries are unfair, irrational, and incompetent when deciding damage awards (Vidmar, 1995, 1998). A number of states have placed caps on the maximum amount of non-economic damages that may be awarded to a plaintiff. For example, in 1995, Illinois placed a limit of \$500,000 on non-economic damages (Thompson, 1997); the limit was promptly tested when a school bus in Illinois was hit by a train and each child's life earning potential was reduced to exactly \$500,000. The limit immediately came under furious attack (see Thompson, 1997).

Punitive damages are also under attack. However, despite claims of reformers who challenge the decision-making capabilities of juries (e.g., Maskin, 1998; Mogin, 1998), punitive damages are only rarely awarded and the reported increase in the mean size of punitive damage awards is driven to a large degree by a few, high, outlying awards (Coon, Greene, & Bornstein, 1998; Galanter, 1998). Despite the tensions between general perceptions of some legal scholars and empirical research, the movement to reform punitive damages endures.

Despite flaws in the arguments of legal critics, punitive damages reforms continue to march forward. Legally establishing upper limits or caps of punitive damages

occupies high priority with many legislators and industry leaders (Koenig & Rustad, 1993; Eisenberg & Wells, 1998). Regarding upper limits of punitive damages, Koenig and Rustad (1993) note that "thirty-nine states either do not permit punitive damages or have taken steps during the last two decades to reduce the frequency and size of punitive damage awards through tort reform" (p. 23). State revisions to punitive damages codes include capping punitive damages, requiring that punitive damage awards be shared with the state government, or raising the standard of proof required for punitive damages liability, usually from "preponderance of evidence" to "clear and convincing evidence" or even to "beyond a reasonable doubt," (Koenig & Rustad, 1993). Another possibility considered by states is bifurcating trials so that information relevant to punitive damage awards (i.e., defendant wealth and defendant conduct) does not inappropriately affect compensatory damage awards (Koenig & Rustad, 1993). Bifurcation of compensatory and punitive damages is explored below.

### Bifurcation

As used in this context, "bifurcation" means "the separation of one of the trial issues . . . for a separate and independent evaluation by the jury" (Horowitz & Bordens, 1990, p. 270). In a bifurcated trial, jurors hear information relevant to the defendant's liability and decide the defendant's liability. In a personal injury case such information includes a description of the accident. If the defendant is deemed liable for the plaintiff's injuries, the jurors then hear descriptions of the severity of the plaintiff's injuries and decide upon a compensatory award. After deciding the compensatory award, jurors may hear information relevant to punitive damages, including the defendant's wealth and the maliciousness and willfulness of the defendant's conduct, and decide whether or not the defendant is liable for punitive damages in addition to compensatory damages. Jurors then decide upon the value for the punitive damage award.

Bifurcation of trials was set forth in Rule 42(b) of the Federal Rules of Civil Procedure which states that "the court, in furtherance of convenience or to avoid

prejudice, or when separate trials will be conducive to expedition and economy, may order a separate trial of any claim . . . or of any separate issue." As stated, the goals of bifurcation include accelerating the trial process and eliminating fusion of information between decisions that should be legally independent.

More specifically, bifurcation addresses a number of goals. Three difficulties which bifurcation of trial proceedings is said to address are

"the confusion that may arise when a fact finder is asked to sift through masses of evidence related to different claims in order to reach a decision; the prejudice that may result when damning information about a particular claim is disclosed in the course of the presentation of evidence affecting a series of different claims; and the delay that may occur when a decision maker is required to hear a sprawling body of evidence relating to a series of claims although a decision may only require consideration of a narrowly focused claim" (Landsman, Diamond, Dimitropoulos, & Saks, in press, p. 1)

The first two difficulties tie directly to fusion and to the present research. According to Landsman, Diamond, Dimitropoulos, and Saks (in press), the third difficulty was foremost in the minds of some lawmakers who embraced the notion of bifurcated trials. Bifurcation appears to save time in some types of cases, particularly those involving personal injury (Zeisel & Callahan, 1967). The possibility of eliminating fusion by bifurcating jurors' decisions requires further explanation.

Earlier in the twentieth century, the concept of bifurcation entered the legal milieu as a possible procedural change, and it has gained in popularity through the present although many legal experts fear that it may bias proceedings in favor of the defendant (Landsman, Diamond, Dimitropoulos, & Saks, in press). Archival research supports the conclusion that pro-defendant bias exists (Zeisel & Callahan, 1967), possibly because, in a bifurcated trial, the plaintiff has fewer opportunities to engage the jurors' sympathy (Trangsrud, 1985). Such a conclusion provides support for the notion that jurors in

unified (non-bifurcated) cases might fuse information about damage awards and liability (see also Bornstein, in press; Greene, 1997).

Bifurcation was introduced in the 1940's, and, as shown in Table 1, the use of bifurcation continues to accelerate into the 1990's. Requests for bifurcation from the first half of the 1990's equaled the total number of requests from the 1980's, although the percentage of successful requests has fallen. In particular, separation of punitive damage information from the earlier trial proceedings involving liability and compensatory damages is on the rise. Some of those seeking to reform the process of awarding punitive damages have focused on bifurcation as a means to reduce punitive damage awards (Landsman, Diamond, Dimitropoulos, & Saks, in press).

Table 1

Cases Involving Rule 42(b) Bifurcation Motions in the Federal Courts, 1950-1995

	Cases in Which Issue Raised	Bifurcation Granted Number	Bifurcation Granted Percent	Cases involving Bifurcation Requests for Punitive Damages	Bifurcation Granted Number	
Percent						
1940s	42	30	71	0	0	0
1950s	74	55	74	2	2	100
1960s	100	74	74	5	4	80
1970s	129	101	78	16	14	88
1980s	273	183	67	55	35	64
1990- 1995	273	140	51	50	32	64

Note. From "Be careful what you wish for: The paradoxical effects of bifurcating claims for punitive damages," by S. Landsman, S. Diamond, L. Dimitropoulos, & M. J. Saks, in press, Wisconsin Law Review.

Some legal authorities express concern that bifurcation might lead to an overcontrolled and artificial courtroom ambiance in which the cause of the injury is

disjointed from the effects of the injury (Landsman, Diamond, Dimitropoulos, & Saks, in press). However, "judicial reactions to [bifurcation] have all taken place with virtually no empirical reassessment of the conventional wisdom about bifurcation" (Landsman, Diamond, Dimitropoulos, & Saks, in press, p. 9). Not only is verdict (liability) outcome at issue, the effects of bifurcation on size of compensatory and punitive damage awards remain unknown.

As mentioned above, Zeisel and Callahan (1967) found that bifurcation created a pro-defendant bias in verdicts, but they did not examine the effects of bifurcation on size of damage awards. In the legal community, their work was reduced to two simple ideas: "one, that bifurcation is likely to hasten trials; and, two, that it is likely to favor defendants because it increases the percentage of [pro-]defense verdicts" (Landsman, Diamond, Dimitropoulos, & Saks, in press, p. 6). Beyond these archival conclusions, little was known until recently. Contemporary simulation research lends support to the archival contentions regarding verdict. Landsman, Diamond, Dimitropoulos, and Saks (in press) as well as Horowitz and Bordens (1990) found that jurors were less likely to find the defendant liable when the trial information was presented in a bifurcated format. Hindsight bias was evident in their work; jurors are more likely to decide in favor of the plaintiff when they have access to all of the outcome information relevant to compensatory awards (Horowitz & Bordens, 1990) and punitive awards (Landsman, Diamond, Dimitropoulos, & Saks, in press).

Although Horowitz and Bordens (1990) reported lower compensatory awards in the unified condition, their results may not be reliable due to small sample sizes (see Horowitz & Bordens, 1990). Landsman, Diamond, Dimitropoulos, and Saks (in press) found similar results with punitive damage awards, however. Not only were jurors in the bifurcated condition more likely to find the defendant liable for punitive damages, the average dollar value of punitive damages was almost four times greater in the bifurcated condition than in the unified condition. Additionally, although Greene, Woody, and

Winter (1998) reported no effects of bifurcation on compensatory awards, they found small but significant increases in punitive damage awards in bifurcated conditions for all three cases used in their research (see figure 1). Bifurcation appears to decrease the likelihood of a defendant being found liable, but the concurrent risk of an increased punitive award may offset the reduced likelihood of liability (Landsman, Diamond, Dimitropoulos, & Saks, in press).

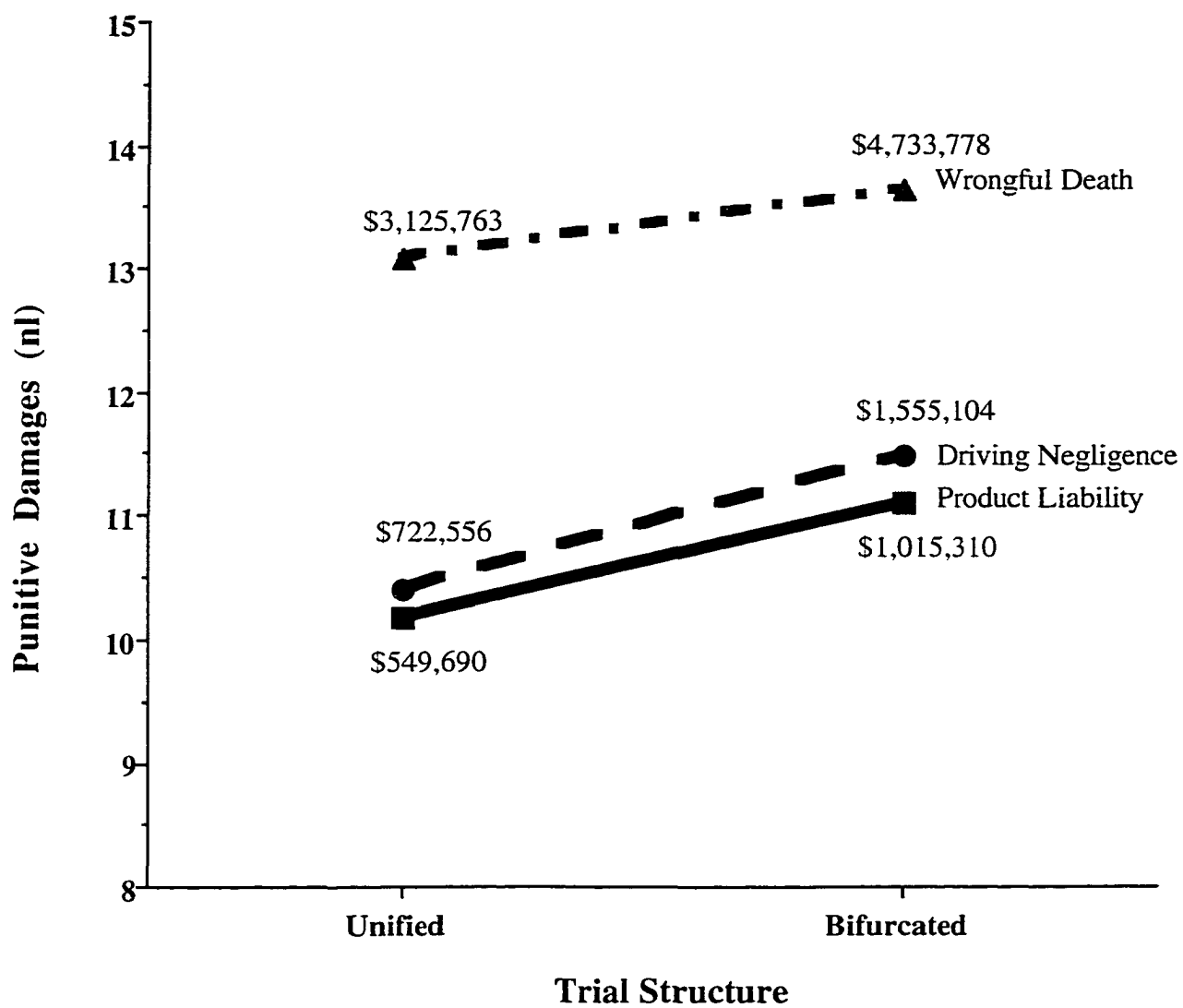


Figure 1. Punitive damage awards transformed to natural log units (with untransformed dollar values in the graph) in a product liability case, a driving negligence case, and a wrongful death case as a function of unified or bifurcated trial structure (from Woody, Winter, & Greene, 1998).

Bifurcation may also be effective in reducing the likelihood of fusion of compensatory and punitive damage information; bifurcation has even been explicitly suggested for reducing impact of hindsight bias (Wexler & Schopp, 1989). When evidence of liability is strong, the presence of punitive damages information in the unified condition increased compensatory damage awards (Landsman, Diamond, Dimitropoulos, & Saks, in press). In the bifurcated condition, no such effect was found since no punitive damage award information was present. Bifurcation apparently reduced the use of punitive damages evidence in compensatory awards decisions. These findings directly conflict with the results of Greene, Woody, and Winter (1998), however. In their unified conditions, they found no evidence of fusion of conduct and wealth information from punitive damages to compensatory damages. Greene, Woody, and Winter (1998) conclude that bifurcation provides no benefits and, in line with Landsman, Diamond, Dimitropoulos, and Saks (in press) as well as Horowitz and Bordens (1990), report that bifurcation, contrary to the goals of tort reformers, may actually increase damage awards. The interpretation of research findings remains unresolved regarding the collective issues of fusion of damage award information and bifurcation as a remedy for such fusion.

#### Fuentes v. Tucker

Fuentes v. Tucker (1947) sets a permanent precedent in the realm of forward fusion of liability information into compensatory damage awards. Clarence L. Tucker, the defendant, stipulated liability in a wrongful death suit in which two boys, both approximately age 12, were killed by the defendant in a motor vehicle accident that occurred while the defendant was legally intoxicated. Tucker unsuccessfully attempted to prevent the jury from hearing details of the accident (e.g., the boys were thrown eighty feet by the impact). Because liability was stipulated, information about the accident was irrelevant to the decision process surrounding the compensatory damage award. The compensatory award was appealed on these grounds. The appeal was denied because the award was not deemed excessive (the parents were awarded \$7500 for each child). The

precedent set by these decisions includes assumptions of forward fusion in the legal system.

Federal Rules of Evidence provide guidelines for the definition and admission into court of relevant and irrelevant evidence. Rule 401 defines relevant evidence according to the following standard: "relevance is established by any showing, however slight, which makes it more likely than it was before the admission of the evidence that the defendant committed the crime in question" (Rule 401). This rule also applies in civil courts, where liability instead of criminal activity is in contention. Rule 402 mandates that irrelevant evidence is inadmissible in court "with certain exceptions" (Rule 402). Once liability is stipulated, details about the accident have no bearing on any other facet of the trial. Such details are irrelevant and therefore inadmissible. However, the details were admitted into the trial, and these details may fuse into the compensatory damages portion of the trial as discussed above. Fusion of information, if the fusion occurs, biases the legal proceedings, but admission of the evidence in *Fuentes v. Tucker* (1947) was defended by the California appeals judges.

One commenting judge assumed that fusion of liability information into the compensatory damage award decision was obvious, and he justified the jury's assumed misuse of the liability information in the following manner:

"It cannot be denied that either a jury or a trial judge is more disposed to award a substantial amount of damages in a case where the defendant is shown to have been guilty of gross negligence and his conduct was such as to indicate a reckless disregard for the safety of others, than where the negligence amounted to only an error in judgment" (p. 19).

In other words, fusion happens, and, not only does fusion occur, it is deemed necessary for determining an appropriate compensatory damage award. The judge combined the functions of compensatory awards with the functions of liability information relevant only to jurors decisions of liability and required that the compensatory award

inappropriately reflect the defendant's actions and contribute to the punishment of the defendant. Two further quotations illuminate the difficulties raised by *Fuentes v. Tucker* (1947) as legal precedent.

First, the judge admitted that part of his opinion (above) inappropriately adds liability information into the decision of compensatory awards.

"Theoretically and technically, and judged by academic standards, [the elimination of liability information from the compensatory award decision process] may be justified, but when gauged by actual experience in the administration of justice it favors the worst offenders by permitting them to escape from a larger award of damages which the trier of fact might feel justified in awarding if the entire picture were presented. This does not mean that a person injured as a result of the negligence of another should receive more damages because his tortfeasor was grossly and wantonly negligent than another with like injuries whose tortfeasor was only slightly negligent. But it simply recognizes the human tendency to weigh liability [in compensation]" (p. 19).

Here the judge claimed that fusion is to be expected and, even though technically inappropriate, is experientially justified. He further defended this view by noting that fusion cannot be clearly demonstrated in *Fuentes v. Tucker* (1947) because the award of \$7500 per wrongful death was not excessive, and the possibility of fusion cannot be evaluated within a single case. In reviewing the *Fuentes v. Tucker* (1947) decision, *Kalven* (1958) agrees with the judge's conclusions and adds that "since the plaintiff has of necessity [fusion of liability and compensatory damage information] in the majority of cases it is discriminatory to deprive him [or her] of it only in the occasional case" (p. 167).

The effect of *Fuentes v. Tucker* (1947) would be inconsequential if not for four factors. First, it is not an isolated case. A number of other cases have followed this precedent (e.g., *Gustin v. Meadows*, 1974; *Jensen v. Torr*, 1986; *McElwain v. Kabatoff*,

1976). Second, the impact extends far beyond cases actually tried before juries; as stated above, predicted outcomes in court largely drive decisions about whether or not a case goes to court. If prejudicial evidence about the event could affect damage awards even when liability is stipulated, parties may settle out of court rather than risking a jury's inflation of a damage award (see Greene, 1989; Kalven, 1958; Wissler, Evans, Hart, Morry, & Saks, 1997). Third, fusion is assumed to occur, is claimed to be undemonstrable in any specific case, and then is declared to exist in enough cases for its removal from a specific case to be unfairly prejudicial in favor of the defendant. These ideas are at least challenging to interpret. Fourth, the effects of having liability information present in the compensatory damages phase of a trial are currently unknown. When liability is stipulated or otherwise determined in advance, the jury only needs to decide compensatory damages and does not need to be presented with information pertaining to liability. The presence or absence of liability information, which is irrelevant in this phase of the trial, may or may not have an effect on the size of the award. The judge in *Fuentes v. Tucker* believed that the liability information would have the predictable effect of increasing the compensatory award. A case in which liability information is presented to jurors is legally identical to a case in which liability information is not presented to jurors. The present research investigated whether these two situations are psychologically and functionally identical as well as legally identical.

A large body of research exists to demonstrate that jurors are susceptible to the effects of extra-legal information. In *Fuentes v. Tucker* (1947), the extra information comes in the form of details about the accident. Such details are relevant only to jury decisions about liability but are irrelevant to decisions about compensatory damages. Other types of irrelevant information that could inappropriately influence jurors include pretrial publicity and evidence that jurors hear but are told to disregard as inadmissible or irrelevant. Irrelevant information would also include, for example, material relating to

liability or to punitive damages introduced during the compensatory damages phase of a trial (see above).

Despite being legally irrelevant, extra-legal information, including pretrial publicity, inadmissible prior record information, and inadmissible evidence or testimony, as well as information irrelevant to a particular phase of a civil trial, impacts the courtroom in both criminal trials and civil trials. As described above, the impacts of injury severity on liability judgments have received empirical attention. However, while the influence of the quality of liability information on compensatory damages has received empirical attention (see Baron & Ritov, 1993; Broeder, 1959; Chapman & Bornstein, 1996; Feigenson, Park, & SaLovey, in press; Greene, 1997), the effects of the simple presence of extra-legal liability information on damage awards is unknown. These effects might comprise just another blank spot on the academic map without the legal implications of *Fuentes v. Tucker* (1947). In *Fuentes v. Tucker* (1947), judges allowed irrelevant liability information to be presented during the compensatory damages section of the trial, and, while admitting that the presence of such information may be a source of bias, they declared it to have no substantive effect on the outcome. Despite the sizable body of psychological research on the effects of extra-legal information, the courts have declared that the presence of liability information in the damages portion of a civil trial does not excessively threaten jurors' ability to decide upon damage awards. Results from the psychology and law research community suggest that the presence of liability information would have an effect on damage awards even though the jury's goals, decision processes, and outcomes are legally identical whether liability information is presented or not. Empirical evaluation of this dilemma was a primary goal of the current research.

#### Methodological Considerations

The present research utilized condensed trial summaries comprised of expert testimony relevant to the plaintiff's injuries as well as closing arguments from attorneys

(see appendices E, F, G, and H) to present the case to individual mock jurors who were students in general psychology classes at Colorado State University. Using summaries presented to individual student jurors engenders a number of methodological concerns which are addressed below. First, implications and justification of the use of summaries is explored. Then, the external validity and generalizability of such research is addressed. Next, considerations required by researchers using student jurors instead of jury-eligible members of the community are examined along with comparisons of individual jurors and deliberating juries. Finally, more specific aspects of the present research will be explored, including effects of participant gender and bifurcation of the trial.

### Mode of Presentation

Several modes of case presentation are available to the contemporary researcher of jury decision making. Videotapes, audiotapes, transcripts, and summaries have all been used to present materials to mock jurors, to jury eligible citizens, and to actual jurors. The present research employed trial summaries as stimuli for several reasons including experimental control and efficiency.

Experimental control. Experimental control was the primary reason for utilizing a trial summary in jury decision-making research. Videotapes and audiotapes present modality effects as well as experimental confounds, neither of which is found in trial summaries. Juhnke, Vought, Pyszczynski, Dane, Losure, and Wrightsman (1979) systematically varied the mode of presentation and reported numerous differences in frequency of conviction verdicts in a single criminal case. Videotaped trials differed from all other modes of presentation in that they generated more "guilty" verdicts than any other method. Audiotapes generated from the videotapes resulted in more guilty verdicts than trial summaries (Juhnke, Vought, Pyszczynski, Dane, Losure, & Wrightsman, 1979). In civil trial research, videotaped testimony with or without video re-creation of an accident produced small changes in liability assessments of the plaintiff when compared to written testimony (Fishfader, Howells, Katz, & Teresi, 1996).

Although disconcerting, these findings alone do not provide enough evidence to reject audiotapes and videotapes as trial stimuli; other research must be examined. In a study of audiotaped trial stimuli, McMahon and Fehr (1984) used twelve different speakers as readers to present trial summaries to participants; their goals in selecting this procedure were to maximize generalizability and minimize experimenter effects. They found significant differences in the proportion of convictions as a function of the reader of the trial stimuli, and concluded "that inconsistent findings in mock jury studies may be attributable in part to factors not manipulated by the researchers, such as the exact case used and the specific voices used on audiotapes" (McMahon & Fehr, 1984, p. 278). Woody (1994) used a videotaped presentation of a sexual assault trial with actors playing the roles of the trial participants. He found that many of the participants in his research reported basing verdict decisions on irrelevant information available only in a videotaped trial stimulus (e.g., a participant convicted the defendant because "he was a complete idiot! He did not look or sound at all not guilty!"). Written trial summaries presented to individual jurors are commonly used in the field of civil jury decision making (see e.g., Bornstein, in press; Bornstein & Rajki, 1994; Cather, Greene & Durham, 1996; Chapman & Bornstein, 1996; Coon, Greene, & Bornstein, 1998; Feigenson, Park, & Salovey, in press; Fishfader, Howells, Katz, & Teresi, 1996; Goodman, Greene, & Loftus, 1989; Green, 1967; Greene, Goodman, & Loftus, 1991; Greene, Woody, & Winter, 1998; Hans & Ermann, 1989; Hart, Evans, Wissler, Feehan, & Saks, 1997; Kaplan & Miller, 1978; MacCoun, 1996; Saks, Hollinger, Wissler, Evans, & Hart, 1997; Thomas & Parpal, 1987; Vidmar, Lee, Cohen, & Stewart, 1994; Wells, 1992; Wissler, Evans, Hart, Morry, & Saks, 1997) and are the most efficient means available for presenting trial stimuli to mock jurors if findings from such research are generalizable to the actual courtroom (see below). In the present study, condensed trial summaries were used instead of videotapes or audiotapes so that extra-legal variables in case presentation (e.g., quality of voice, clothing, mannerisms, etc.) were minimized.

### External Validity

Results from the present research must be generalizable to actual courtroom proceedings. The general acceptance of the simulation research paradigm provides some consensual support for its methodologies. Even conservative researchers concede that "some degree of generalizability seems cautiously appropriate" (Gerbas, Zuckerman, & Reis, 1977, p. 343). More mainstream researchers have some cautions as well. "Empirical demonstrations of relationships among variables under selected conditions can inform the development of relevant models; such theoretical mechanisms (whether formal or informal in character) in turn can perhaps be explored for implications concerning social policy, legislation, and so on, constituting an improvement over unaided intuition and conventional wisdom that have historically been the only recourse. It would be imprudent in the extreme to presume a one-to-one relationship between one or a few empirical studies and social policy or legislation" (Davis, 1989, p. 221). Despite such warnings, convergent validity is too often inappropriately ignored by the courts. "We are dismayed when policy makers (e.g., appellate courts and legislatures) appear to ignore compelling research findings or limit their consideration to doctrine or 'rational evaluation' when the fundamental issues seem to be empirical" (Pennington & Hastie, 1990, p. 103). Empirical questions demand empirical answers. However, simulation research requires that several considerations must be addressed, including realism of the simulation, participant characteristics, and the use of individual jurors instead of deliberating juries.

Realism. Many social scientists and legal scholars share concerns regarding the relationship between realism and generalizability (e.g., Bermant, McGuire, McKinley, & Salo, 1974; Kerr, 1995; Kramer & Kerr, 1989). Kramer and Kerr (1989) found no interaction between extra-legal factors (i.e., factual and emotional pretrial publicity), and they replicated their results with increased simulation realism. They concluded "that treatments used in simplified jury simulations may often show similar effects when

examined in more realistic, complex settings if the treatments are comparable" (Kramer & Kerr, 1989, p. 89). In the present research, a summary was used instead of a more complex trial stimulus due to the presentation concerns described above. Manipulations of the presence of liability information and the severity of the plaintiff's injury are expected to be comparable to actual differences in legal evidence and therefore generalizable to more complex courtroom situations.

Participant characteristics. Research on jury decision making often investigates participant characteristics seeking correlates of jurors' verdicts. Overall, success has been only variable at identifying reliable predictors (see MacCoun, 1989), and concern exists regarding the generalizability of findings based on student populations which may be atypical jury populations (see e.g., Weiten & Diamond, 1979, for an overview). However, research comparing jury-eligible student populations to jury-eligible community populations has failed to justify these concerns; Bornstein and Rajki (1994) as well as Casper, Benedict, and Perry (1989) found no systematic differences between students and community members. Hart, Evans, Wissler, Feehan, and Saks (1997) found small differences between community members and undergraduate students, but the differences were primarily due to the nature of their community sample. Their community sample was comprised of senior citizens, and the differences between undergraduates and senior citizens were not related to jury-related behavior but to judged frequency and specificity of probable injuries that might result from certain accidents (Hart, Evans, Wissler, Feehan & Saks, 1997).

Most students at a university will take a general psychology class, and most will take it early in their academic career (Vattano, 1998). Although the mean level of education in a general psychology class is likely to be higher than the mean level of education on a jury, mock jurors from a general psychology class are likely to be as, if not more, similar to actual jurors from the community as students from any other class in academia.

Individual jurors and juries. The effects of jury deliberation remain unclear; "data on these issues are rudimentary and somewhat confusing" (Greene, 1989, p. 238). When jurors deliberate, their confidence in the final verdict increases, and deliberation decreases likelihood of deciding in favor of defendant liability in a civil case although effect sizes are small (Hastie, Schkade, & Payne, 1999c). Hastie, Schkade, and Payne (1999c) tentatively conclude that "jury deliberation is more thorough than individual reasoning, [and] the more thorough the decision process, the more likely it is to conclude for the defendant; therefore there is a (slight) shift toward prodefense verdicts from the beginning to the end of jury deliberation" (p. 30). However, "Findings suggest that the situation is more complicated than previously believed: for certain decisions, such as compensation, group awards may reflect individual awards, while for other decisions, such as punishment, this relationship may not operate" (Greene, 1989, p. 240). At best, jury deliberation is complicated and poorly understood. Juries are comprised of individuals, and while there are conflicting theories of jury group processes (see Greene, 1989, for an overview), it is at least agreed that juries combine the ideas of twelve individuals into one final outcome. Diamond and Casper (1992) reported that the best predictors of the final jury award decisions were the median, mean, and mode, respectively, of individual jurors' predeliberation awards. If individual jurors are influenced by the independent variables of jury decision making research, long-term effects on jury behavior are expected and have been consistently produced in research comparing individual jurors to juries (e.g., Diamond & Casper, 1992). Landsman, Diamond, Dimitropoulos, and Saks (in press) found no systematic differences in damage awards from individual jurors and damage awards from deliberating juries; the behavior of individual jurors is an accepted means of investigating legal and extra-legal influences on civil jury behavior (see e.g., Bornstein, 1994; Bornstein, in press; Bornstein & Rajki, 1994; Casper, Benedict, & Perry, 1989; Cather, Greene, & Durham, 1996; Chapman & Bornstein, 1996; Feigenson, Park, & Salovey, in press; Fishfader, Howells, Katz, &

Teresi, 1996; Goodman, Greene, & Loftus, 1989; Hans & Ermann, 1989; Green, 1967; Greene, Goodman, & Loftus 1991; Hart, Evans, Wissler, Feehan, Saks, 1997; Hastie, Schkade, & Payne, 1999a, 1999b; Hinz & Indahl, 1995; Kamin & Rachlinski, 1995; MacCoun, 1996; Saks, Hollinger, Wissler, Evans, & Hart, 1997; Thomas & Parpal, 1987; Vidmar, Lee, Cohen, & Stewart, 1994; Wiggins & Breckler, 1990; Wissler, Evans, Hart, Morry, & Saks, 1997).

### Gender

Gender remains a disputed topic in civil jury decision making research. While some researchers report finding significant gender effects (e.g., Nagel & Weitzman, 1972; Snyder, 1971), other scholars have reported a lack of gender differences in damage awards (Bornstein, 1994; Fishfader, Howells, Katz & Teresi, 1996; Goodman, Greene, & Loftus, 1989; Hans & Ermann, 1989; Kamin & Rachlinski, 1995; MacCoun, 1996; Rogers, 1991). Contradictory results have been reported, even within one series of studies (Hastie, Schkade, & Payne, 1999a, 1999b). Hastie, Schkade, and Payne (1999b) found small but significant effects of gender, with males assessing higher awards than females, but Hastie, Schkade, and Payne (1999a) found no gender effects using a variation on the same case, a similar methodology, and a similar participant population. Many contemporary researchers (e.g., Bornstein, in press; Cather, Greene, & Durham, 1996; Feigenson, Park, & Salovey, in press; Greene, Woody, & Winter, 1998; Hart, Evans, Wissler, Feehan, & Saks, 1997; Horowitz & Bordens, 1990; Landsman, Diamond, Dimitropoulos, & Saks, in press; Vidmar, Lee, Cohen, & Stewart, 1994; Wissler, Evans, Hart, Morry, & Saks, 1997) do not analyze gender with regard to dependent variables in civil trials. Participant gender was not expected to influence damage awards in the present research. Gender was included in the multiple regression analysis (see below) of damage awards because it is correlated with general attitudes toward vengeance (Cota-McKinley, Woody, & Bell, 1998), which may be influential in assessment of punitive awards. However, because Cota-McKinley, Woody, and Bell (1998) found no effect of

participant gender on vengeance in specific situations, gender was not expected to affect punitive damage awards significantly.

### Bifurcation

The present research was conducted in a bifurcated format. The influence of liability information on compensatory damages when liability is stipulated is currently unknown. If the trial stimulus were presented in a unified format, with all information relevant to compensatory and punitive damages introduced to jurors at one time, the presence of the liability information could have been overshadowed by the egregious conduct of the defendant. Additionally, the punitive damages information relevant to the defendant's severe misconduct may contaminate the compensatory damage award. Although some results found using a similar methodology (Cather, Green, & Durham, 1996; Greene, Woody, & Winter, 1998) suggest that fusion of punitive damage information into compensatory damage awards does not occur, two experimental investigations do not provide sufficient grounds to thoroughly reject the possibility of contamination.

Although bifurcating all conditions insulated the compensatory damage award from the potential influences of severe defendant misconduct, bifurcation may raise some separate issues. Bifurcation generally increased awards across three studies (i.e., Greene, Woody, & Winter, 1998; Horowitz & Bordens, 1990; Landsman, Diamond, Dimitropoulos, & Saks, in press), and the two experimental investigations of the effects of bifurcation on punitive awards found increased punitive awards in bifurcated trials (Landsman, Diamond, Dimitropoulos, & Saks, in press; Greene, Woody, & Winter, 1998). In the present research, it was possible that punitive damage awards were increased across all conditions. Such effects remained unmeasured since no comparable unified conditions were utilized. However, the risks of bifurcating all conditions without unified comparisons were outweighed by the separate investigation of the presence of liability information in the compensatory damages phase of the trial stimulus.

### Overview

Three-hundred-eleven participants acting as individual mock jurors read a summary of a personal injury lawsuit with an individual plaintiff suing a corporation, a trucking company, for negligence in a motor vehicle accident. The plaintiff was seeking both compensatory and punitive damages, and the trial was bifurcated so that conclusions related to compensatory damages decision making remain clearly uncontaminated by punitive damages information. Liability was decided beforehand; the corporation acknowledged that the driver was its employee acting within the course of his employment, thus making the corporation liable for any negligence of its employee. *Experimental variables included the presence of liability information and injury severity.*

Even though liability information is irrelevant to jurors' decisions about compensatory damages, such evidence can be made admissible as in *Fuentes v. Tucker* (1947). All mock jurors read descriptions of the injuries suffered by the plaintiff, but only half of the mock jurors learned the details of the accident. Liability information presented in this context should, according to legal theory, have no impact on compensatory damages or punitive damages.

Severity of injury was the second independent variable. Half of the participants read of a plaintiff who is mildly injured, and half of the participants read of a plaintiff who is severely injured. Injury severity was expected to influence compensatory damage awards but not punitive damage awards.

Neither independent variable should affect punitive damage awards. Any systematic variation in punitive awards would reflect extra-legal bias in juror decisions. Punitive damages should only be influenced by defendant conduct and wealth, both of which were held constant in the present research. However, it was expected that punitive damage awards would be related to participants' attitudes toward vengeance, potentially including other predictors of vengeful behavior such as participant age and, possibly, participant gender. Specific hypotheses were as follows.

### Hypotheses

1) Effects of presence of liability information. Legally, liability information should have no effect on compensatory or punitive awards.

However, it was expected that inclusion of liability information would result in higher compensatory awards. Such effects were expected from converging results in other jury decision-making fields which demonstrate that jurors use biasing information (e.g., pretrial publicity, inadmissible evidence, and quality of liability information) even when such information is irrelevant. Inclusion of such information should not affect punitive damage awards, particularly in contrast to punitive damages information presented to participants. The malignancy of the defendant's hiring practices (see Appendix L) were expected to outweigh a description of the accident.

2) Effects of injury severity. Legally, a more severely injured plaintiff should be awarded higher compensatory damages, but punitive damages should remain unaffected by injury severity.

It was expected that, in accordance with legal theory, a more severely injured plaintiff would be awarded higher compensatory damages.

However, some previous research on fusion as well as specific predictions drawn from studies of hindsight bias suggest that a more severe outcome, in the form of a severely injured plaintiff, would cause jurors to perceive the defendant's behavior as more reprehensible. Thus, a more severely injured plaintiff was expected to be awarded higher punitive damages as well as higher compensatory damages.

3) Vengeance. Vengeance should not exist in the modern civil legal system. If attitudes toward vengeance were correlated with damage awards, it could be argued that vengeful motives may still influence courtroom proceedings.

Revenge was not expected to be correlated with compensatory damages because the reciprocity that drives notions of compensation is distinct from the personal, escalating, and potentially irrational notions of vengeance.

Vengeance was expected to be correlated with punitive damage awards. Individual jurors who have accepting attitudes toward vengeance may utilize punitive damages to take revenge against the defendant on behalf of the plaintiff; vengeful motives may not be completely extinct in the modern American legal system.

## CHAPTER 2

### METHOD

#### Participants

Participants were 311 students enrolled in courses in General Psychology at Colorado State University. All students participated to fulfill a class requirement, and they were treated in accordance with the APA ethical guidelines set forth in Ethical Principles of Psychologists (APA, 1994).

#### Materials

After completing a brief demographic survey (appendix A), participants read one of four summaries of a mock personal injury lawsuit: mild injury/liability information, mild injury/ no liability information, severe injury/liability information, or severe injury/no liability information (appendices E, F, G, and H, respectively). The case depicts a motor vehicle accident involving personal injury. The plaintiff seeks both compensatory and punitive damages.

Trial stimulus. The mock trial stimulus is an adaptation of a trial stimulus based on an actual case and modified by Greene (1997) for a damage award project funded by the National Science Foundation. Greene (1997) endeavored to create a case which would allow direct comparisons of the effects of several independent variables including severity of plaintiff injury. The case has been extensively pretested with undergraduate students. Her mild plaintiff injury condition was created and tested to be significantly different from her severe plaintiff injury condition, and undergraduate students at a public land grant institution on the Front Range of Colorado perceived the severely injured plaintiff as more severely injured than the mildly injured plaintiff (Greene, 1997). Only the injuries

sustained by the plaintiff and the presence of liability information were systematically altered in the present research.

The present case was then modified by adding punitive damages information from trial stimuli developed and used by Greene, Woody, and Winter (1998). One of their defendants was also a trucking company who engaged in unacceptable hiring practices. Participants in their conditions who read about the defendant as engaging in "highly reprehensible" conduct awarded higher punitive damage awards than participants reading about a "mildly reprehensible" defendant to award punitive damages to the plaintiff; therefore, evidence used in this condition was selected for the present research. The present research also employed defendant wealth information from the "wealthy" condition of Greene, Woody, and Winter (1998). As discussed in Chapter 1, punitive damage awards should reflect the defendant's ability to pay. Therefore, a highly wealthy defendant should be more likely to be assessed non-zero punitive damage awards than a less wealthy defendant. Using the wealth information which portrayed a trucking company similar to the trucking company depicted in the present research as "wealthy" resulted in higher punitive awards from participants (Greene, Woody, & Winter, 1998). It was hoped that if punitive damages were likely to be assessed against the defendant, then the present research could avoid the pitfalls associated with floor effects, which may have occurred if the punitive damages evidence was too weak.

Although liability was stipulated in all cases, half of the participants read a description of the accident containing liability information (appendix D). The remaining half of the participants only learned that it was a motor vehicle accident involving the plaintiff and the defendant.

There were two descriptions of the injuries sustained by the plaintiff. Half of the participants read of mild injuries, and half read of severe injuries. In the mild injury condition, the plaintiff suffers a concussion in addition to multiple small abrasions and lacerations of the head, eyes, ears, and neck and a hyper flexion injury to the cervical spine

and a soft tissue injury to the neck. The injuries caused the plaintiff to spend one week in the hospital and miss three months of work, and it is anticipated that he will experience chronic pain for the rest of his life (see appendix B). In the severe injury condition, the plaintiff experiences traumatic brain injury with severe brainstem and frontal lobe injuries, nerve palsy, depressed level of responsiveness, paraplegia, and severe impairment in the ability to use language. Additionally, he lacks bowel and bladder control, has a fractured left shoulder with a decreased range of motion, and has multiple muscle contractures (see appendix C).

Manipulation effectiveness. Participants also read compensatory damage award instructions and completed a compensatory damage award form (see appendix I). They then read punitive damages evidence, including defendant misconduct and defendant wealth (see appendix J), before completing a punitive damage award form (see appendix K). Participants answered a series of questions exploring manipulation effectiveness which asked participants to rate the severity of the plaintiff's injuries, the defendant's conduct, and the defendant's wealth (see appendix L).

The questions described above were used to investigate participants' perceptions of the trial. First, the magnitude of the manipulation of the plaintiff's injury could be investigated. Do participants perceive the severely injured plaintiff as actually more injured than the mildly injured plaintiff? Second, the questions listed above could provide additional insight into the effects of independent variables on participants' perceptions of other aspects of the trial. Could presence of liability information or plaintiff injury also affect participants' perceptions of the defendant's conduct and/or wealth? Third, participants' perceptions of plaintiff injury, defendant conduct, and defendant wealth could be correlated with damage awards (see Greene, Woody, & Winter, 1998) to evaluate the association of these perceptions with participants' actual damage awards.

Next, participants answered questions addressing their goals when assessing compensatory and punitive damage awards (see appendix L). Therefore, participants' self-

reports of appropriate use of evidence could be directly compared to their self-reports of inappropriate use of evidence for both compensatory and punitive damages awards.

Although participants may not have complete awareness of their own decision processes (Fiske & Taylor, 1991), self-report data may provide converging evidence to support or challenge other findings within the study.

Vengeance. After the manipulation effectiveness questions, participants completed the Vengeance Scale (see appendix M). The Vengeance Scale was created by Stuckless and Goranson (1992) to assess vengeance directly without forcing revenge into a subcategory of retaliation, hostility, reciprocity, or retribution. Creation of the Vengeance Scale was based on theoretical notions of vengeance. After the initial generation of items, a panel of faculty and graduate student judges rated the items, and then 402 undergraduate participants responded to the work in progress. Items were then selected and deleted using a series of statistical inferences related to social desirability and relationship with the scale as a whole. The Cronbach's alpha for the final, 20-item Vengeance Scale when it was created was .92 for females and .93 for males, and the mean inter-item correlation was .38 (Stuckless & Goranson, 1992). Factor analysis revealed a single factor such that factor loadings for all items were .47 or above (Stuckless & Goranson, 1992). The Vengeance Scale was highly correlated with other measures of future intentions of revenge and past behavior of revenge, and the test-retest correlation was  $r = .90$ ,  $p < .01$  (Stuckless & Goranson, 1992). Due to strong ratings of internal reliability, test-retest reliability, and external validity, the Vengeance Scale was selected for the present research.

### Design

The present research utilized a two x two between participants experimental design with presence of liability information and severity of plaintiff injuries as between participants variables. Participants' age, gender, and attitudes toward vengeance served as correlational variables.

### Procedure

Data were collected in classroom settings in evening sessions during the semester. After giving informed consent, participants were given oral instructions describing the nature of their tasks as well as the functions of compensatory and punitive damages. Participants then completed the demographic survey. Students read that liability has already been determined in a prior judicial hearing and that they, as individual jurors, needed to assign compensatory damages. Participants read a description of the case with or without liability information describing the accident. The case depicted the plaintiff as mildly or severely injured. Students then read instructions regarding compensatory damages and decided compensatory damages. The trial was presented in a bifurcated format as is possible according to Rule 42 of the Federal Rules of Civil Procedure so that the effects of liability information on compensatory damages could be assessed without the potentially contaminating presence of punitive damage information about defendant misconduct. After participants completed the compensatory damages section of the trial, they then read instructions regarding punitive damages and, if justified, assigned punitive damages. Students then completed the manipulation effectiveness questions and the vengeance scale. All participants were thoroughly debriefed (see Appendix N).

### Power Analysis

Civil jury decision-making simulation studies tend to produce small to medium effect sizes (see e.g., Greene, Woody, & Winter, 1998; Cather, Greene, & Durham, 1996). A power analysis was performed to predict the number of participants required for each condition so that, if present, small effects could be detected in the proposed 2 x 2 interaction of liability information and injury severity. Cohen (1969, p. 280) states that explaining six percent of the variance in a given ANOVA is equivalent to an  $f$  (the ratio of the standard deviation of the mean to the standard deviation of the population) of .25. Greene, Woody, and Winter (1998) found  $R^2$  values which varied around .06. An estimate of effect sizes would thus suggest using an  $f$  of .25 to determine the required

number of participants. Using an alpha level of .05 and an  $f$  of .25, sixty-four participants were needed per cell to produce a power level of .80 (Cohen, 1969, p. 304). The conservative number of seventy-five participants per cell was set for the present research. Actual N in each condition is presented in Table 2.

Table 2

The Three Experimental Variables, Each with Two Levels, in a Factorial Design and the Actual N for Each Condition

<u>Damage Award</u> (Within)	<u>Liability Information</u> (Between)	<u>Injury</u> (Between)
Compensatory	Present	Mild $N=78$
		Severe $N=76$
	Absent	Mild $N=80$
		Severe $N=77$
		TOTAL $N = 311$
Punitive	Present	Mild $N=78$
		Severe $N=76$
	Absent	Mild $N=80$
		Severe $N=77$
		TOTAL $N = 311$

## CHAPTER 3

### RESULTS

Data collected included mock jurors' compensatory damage awards and punitive damage awards in dollar values, a series of responses designed to evaluate manipulation effectiveness and participants' self-reported use of trial evidence, and participants' performance on the Vengeance Scale. Data are presented in Appendix O. First, data regarding manipulation effectiveness questions will be investigated. Second, independent variable manipulations will be discussed and descriptive statistics will be presented. Third, regression equations will be reported for compensatory damage awards and punitive damage awards. Fourth, participants' self-reports of information use will be examined.

#### Descriptive Information for Demographics

Demographically, of the 311 participants, 108 were men, and 203 were women. The mean age was 18.77,  $SD = 2.47$ . Two hundred forty-eight participants were first year students, 39 were sophomores, 18 were juniors, and 6 were seniors. Ethnically, 276 participants were white, and 35 were non-white, and only four participants had had actual experience with a civil trial. Because of radically unbalanced sample sizes, class, ethnicity, and civil trial experience were left out of analyses.

#### Manipulation Effectiveness

Plaintiff Injury. The severity of the plaintiff's injuries was experimentally manipulated between participants. Using a 10-point Likert scale (in which a higher score indicated a perception of a more severe injury), a series of nine questions evaluated participants' perceptions of the plaintiff's injuries. Three-hundred-six participants made usable responses to the questions; five participants left questions unanswered. Questions

referring to plaintiff injury and descriptive statistics for participants' perceptions of injury are displayed in Table 3.

Table 3

Descriptive Statistics for Questions Investigating Participants' Perceptions of the Severity of the Plaintiff's Injury

<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. How much sympathy do you feel for the plaintiff?	8.02	1.85
2. How much physical pain has the plaintiff suffered?	8.48	1.48
3. How much time will the physical pain last?	8.66	1.41
4. How much mental suffering has the plaintiff endured?	7.80	2.26
5. How long will the mental suffering last?	7.53	2.62
6. To what degree is the plaintiff disabled permanently?	7.26	2.42
7. To what degree is the plaintiff disfigured?	5.45	3.00
8. How visible are the plaintiff's injuries to other people?	5.68	3.19
9. Overall, how serious are the plaintiff's injuries?	7.66	2.06
<u>Scale mean</u>	<u>7.39</u>	<u>1.80</u>

Cronbach's alpha for the nine questions was .92. An exploratory principal components analysis indicated that all questions loaded on a single factor (eigenvalue = 5.56) that explained 61.8 percent of the variance. As shown in Table 4, all items as well as the scale mean were correlated with both compensatory damage awards and punitive damage awards.

Table 4

Means, Standard Deviations, and Intercorrelations for Questions Investigating Participants' Perceptions of the Plaintiff's Injury

		<u>M</u>	<u>SD</u>	1	2	3	4	5	6	7	8	9	10	11	12
1.	Question 1	8.02	1.85												
2.	Question 2	8.48	1.48	.51*											
3.	Question 3	8.66	1.41	.28*	.42*										
4.	Question 4	7.80	2.26	.52*	.67*	.36*									
5.	Question 5	7.53	2.62	.45*	.53*	.37*	.80*								
6.	Question 6	7.26	2.42	.45*	.54*	.29*	.57*	.55*							
7.	Question 7	5.45	3.00	.48*	.57*	.24*	.65*	.64*	.71*						
8.	Question 8	5.68	3.19	.48*	.58*	.21*	.64*	.62*	.68*	.85*					
9.	Question 9	7.66	2.06	.55*	.70*	.39*	.72*	.68*	.72*	.74*	.78*				
10.	Scale Mean	7.39	1.80	.65*	.75*	.45*	.84*	.81*	.80*	.88*	.87*	.90*	.92		
11.	Transformed Compensatory Award	12.95	1.88	.29*	.34*	.25*	.43*	.42*	.39*	.42*	.44*	.44*	.49*		
12.	Transformed Punitive Award	12.87	2.43	.24*	.15#	.17*	.28*	.23*	.27*	.30*	.27*	.25*	.32*	.40*	

Note. Cronbach's alpha for the Mean appears on the diagonal.

# indicates  $p < .05$ , \* indicates  $p < .01$ . All significance tests are two-tailed.

A MANOVA was performed on the questions evaluating participants' perceptions of the plaintiff's injury using presence of liability information, injury severity, and the interaction of presence of liability information and injury severity as independent variables and the nine questions investigating participants' perceptions of plaintiff injury as dependent variables. Although presence of liability information did not significantly influence participants' perceptions of plaintiff injury, Wilke's Lambda  $F(9, 294) = .57, p > .05$ , and the interaction of presence of liability information and injury severity did not significantly influence participants' perceptions of plaintiff injury, Wilke's Lambda  $F(9, 294) = .38, p > .05$ , depicted severity of plaintiff's injury (mild or severe) was a significant predictor of perception of injury, Wilke's Lambda  $F(9, 294) = 92.72, p < .001, \eta^2 = .739$ . Severity of injury accounted for significant amounts of variance across all nine dependent measures (see Table 5 for univariate statistics).

Table 5

MANOVA Results for Participants' Perceptions of the Plaintiff's Injury as a Function of Presence of Liability Information, Injury Severity, and the Interaction of Presence of Liability Information and Injury Severity: Univariate F-statistics with (1, 302) Degrees of Freedom

Question	Liability		Injury		Liability x Injury	
	F	partial eta <sup>2</sup>	F	partial eta <sup>2</sup>	F	partial eta <sup>2</sup>
1.	.64	.00	67.54**	.18	.00	.00
2.	.14	.00	144.56**	.32	.05	.00
3.	.04	.00	6.53*	.02	1.14	.00
4.	.96	.00	206.39**	.41	.23	.00
5.	.49	.00	167.20**	.36	.18	.00
6.	1.71	.01	240.61**	.44	.49	.00
7.	.32	.00	369.21**	.55	.01	.00
8.	.22	.00	703.63**	.70	.03	.00
9.	.13	.00	301.80**	.50	.13	.00

\* indicates  $p < .05$ , \*\* indicates  $p < .01$ .

Participants perceived the plaintiff depicted as severely injured as more seriously injured than the plaintiff depicted as mildly injured; therefore further results can be examined in light of the effective injury manipulation. Means for participants' perception of injury severity as a function of actual injury severity are displayed in Table 6.

Table 6

Means and Standard Deviations for Participants' Perceptions of Plaintiff's Injury as a Function of Actual Injury Severity

Question	Mild Injury		Severe Injury	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
1	7.24	1.79	8.82	1.56
2	7.65	1.28	9.33	1.15
3	8.46	1.46	8.87	1.32
4	6.37	2.04	9.25	1.39
5	5.98	2.59	9.10	1.46
6	5.66	2.20	8.87	1.30
7	3.25	2.14	7.68	1.88
8	3.04	1.84	8.36	1.66
9	6.21	1.67	9.13	1.21
Mean	5.98	1.84	8.82	.51

A regression equation was constructed to examine relationships between participants' perceptions of the various aspects of the plaintiff's injuries and transformed compensatory damage awards. The complete equation explained a significant amount of variance in compensatory awards,  $F(9, 285) = 10.71$ ,  $p < .01$ ,  $R^2 = .25$ , but none of the questions predicted compensatory damage awards above and beyond the others. Additionally, a regression equation was constructed to evaluate the association of participants' perceptions of the various aspects of the plaintiff's injuries with participants' perceptions of the overall severity of the plaintiff's injuries. The entire equation explained a

significant amount of variance in injury severity,  $F(8, 297) = 126.85, p < .001, R^2 = .774$ . As shown in Table 7, questions two, three, five, six, and eight ("How much physical pain has the plaintiff suffered?"; "How much time will the pain last?"; "How long will the mental suffering last?"; "To what degree is the plaintiff disabled permanently?"; and "How visible are the plaintiff's injuries to other people?") were significant predictors of the participants' perceptions of the overall severity of the plaintiff's injuries (question nine: "Overall, how serious are the plaintiff's injuries?").

Table 7

Results of Regression Analysis for Participants' Perceptions of Overall Injury Severity as a Function of Participants' Perceptions of Specific Aspects of Injury Severity

<u>Step and Question</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>	<u>b</u>	<u>se b</u>	<u>β</u>
1	.30	.30	.07	.04	.06
2	.54	.24	.27	.06	.20**
3	.55	.01	.11	.04	.08*
4.	.63	.08	.09	.05	.10
5.	.65	.02	.08	.04	.10*
6.	.73	.08	.19	.04	.22**
7.	.74	.01	-.01	.04	-.01
8	.77	.03	.23	.04	.35**

\* indicates  $p < .05$ , \*\* indicates  $p < .01$ . All significance tests are two-tailed. b, se b, and β are with all variables entered in the equation.

Defendant Conduct. The conduct of the defendant was not experimentally manipulated in the present research. Three-hundred-ten participants made usable responses to the questions; one participant left questions unanswered. Five questions asked participants to use a 10-point Likert scale to evaluate their perceptions of the actions of the

defendant (see Table 8). Cronbach's alpha for the five questions was .78. An exploratory principal components analysis showed that all questions loaded on a single factor (eigenvalue = 2.68) that explained 53.5 percent of the variance.

Table 8

Descriptive Statistics for Questions Investigating Participants' Perceptions of the Defendant's Conduct

<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. How careful was the defendant?	8.16	1.58
2. To what extent were the defendant's actions malicious?	5.07	2.72
3. To what extent were the defendant's actions morally wrong?	5.89	2.76
4. To what extent were the defendant's actions selfish and greedy?	6.28	3.02
5. To what extent should the defendant be punished?	7.41	1.97
<u>Scale Mean</u>	<u>6.56</u>	<u>1.79</u>

Note. Question one is reverse scored.

As revealed in Table 9, only the scale mean and questions four and five were correlated with compensatory damages. However, all questions addressing defendant conduct were correlated with punitive damage awards.

A MANOVA was performed on the questions evaluating participants' perceptions of the defendant's conduct using presence of liability information, injury severity, and the interaction of presence of liability information and injury severity as independent variables and the five questions investigating participants' perceptions of defendant conduct as dependent variables.

Table 9

Correlation Matrix for Questions Investigating Participants' Perceptions of the Defendant's Conduct

		<u>M</u>	<u>SD</u>	1	2	3	4	5	6	7	8
1.	Question 1	8.16	1.58								
2.	Question 2	5.07	2.72	.099							
3.	Question 3	5.89	2.76	.24*	.52*						
4.	Question 4	6.28	3.02	.18*	.45*	.65*					
5.	Question 5	7.41	1.97	.26*	.47*	.52*	.56*				
6.	Scale Mean	6.56	1.79	.40*	.73*	.84*	.83*	.76*	.77		
7.	Transformed Compensatory Award	12.95	1.88	.03	.02	.06	.15*	.19*	.12#		
8.	Transformed Punitive Award	12.87	2.43	.15*	.28*	.32*	.15*	.45*	.44*	.40*	

Note. Cronbach's alpha for the Mean appears on the diagonal.

# indicates  $p < .05$ , \* indicates  $p < .01$ . All significance tests are two-tailed.

Although presence of liability information did not significantly influence participants' perceptions of defendant conduct, Wilke's Lambda  $F(5, 302) = .64, p > .05$ , and the interaction of presence of liability information did not significantly influence participants' perceptions of defendant conduct, Wilke's Lambda  $F(5, 302) = .80, p > .05$ , severity of plaintiff's injury (mild or severe) was a significant predictor of perception of the defendant's conduct, Wilke's Lambda  $F(5, 302) = 7.63, p < .05, \eta^2 = .112$ . As shown in Table 10, severity of plaintiff's injury accounted for significant amounts of variance for questions two through five ("To what extent were the defendant's actions malicious?"; "To what extent were the defendant's actions morally wrong?";

"To what extent were the defendant's actions selfish and greedy?"; and "To what extent should the defendant be punished?").

Table 10

MANOVA Data for Participants' Perceptions of the Defendant's Conduct as a Function of Presence of Liability Information, Injury Severity, and the Interaction of Presence of Liability Information and Injury Severity:: Univariate F-statistics with (1, 306) Degrees of Freedom

Question	Liability		Injury		Liability x Injury	
	F	partial eta <sup>2</sup>	F	partial eta <sup>2</sup>	F	partial eta <sup>2</sup>
1.	.17	.00	1.24	.00	.03	.00
2.	.65	.00	4.42*	.01	3.46	.01
3.	.78	.00	3.37***	.01	1.20	.00
4.	.02	.00	8.10**	.03	.18	.00
5.	.08	.00	29.67**	.09	.69	.00

\* indicates  $p < .05$ , \*\* indicates  $p < .01$ , \*\*\* indicates  $p = .067$ .

Participants perceived the conduct of the defendant as more serious when the plaintiff was severely injured as opposed to when the plaintiff was mildly injured; descriptive statistics for participants' perceptions of defendant conduct as a function of severity of injury are displayed in Table 11.

Table 11

Means and Standard Deviations for Participants' Perceptions of Defendant's Conduct as a Function of Manipulated Injury Severity

Question	Mild Injury		Severe Injury	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
1	8.25	1.45	8.05	1.70
2	4.75	2.54	5.40	2.86
3	5.61	2.81	6.18	2.69
4	5.80	3.14	6.77	2.82
5	6.84	2.05	8.00	1.69
Mean	6.25	1.34	6.88	1.16

Defendant Wealth. Defendant wealth was not manipulated in the present research. Three-hundred-nine participants made usable responses to the questions; two participants left questions unanswered. Two questions asked participants to use a 10-point Likert scale to evaluate the wealth of the defendant (see Table 12). Cronbach's alpha for the two questions was .91. An exploratory principal components analysis indicated that both questions loaded on a single factor (eigenvalue = 1.84) which explained 91.8 percent of the variance.

Table 12

Descriptive Statistics for Questions Investigating Participants' Perceptions of the Defendant's Wealth

<u>Question</u>	<u>Mean</u>	<u>SD</u>
How wealthy is the defendant?	7.08	2.41
How able is the defendant to financially compensate the plaintiff?	7.37	2.71
Scale Mean	7.23	2.46

As shown in Table 13, participants' perceptions of the defendant's wealth were not correlated with compensatory damage awards but were correlated with punitive damage awards.

Table 13

Means, Standard Deviations, and Correlations for Questions Investigating Participants' Perceptions of the Defendant's Wealth

	<u>M</u>	<u>SD</u>	1	2	3	4	5
1. Question 1	7.08	2.41					
2. Question 2	7.37	2.71	.84*				
3. Scale Mean	7.23	2.46	.95*	.96*	.91		
4. Transformed Compensatory Award	12.95	1.88	.089	.07	.08		
5. Transformed Punitive Award	12.87	2.43	.18*	.18*	.19*	.40*	

Note. Cronbach's alpha for the Mean appears on the diagonal.

\* indicates  $p < .01$ . All significance tests are two-tailed.

A MANOVA was performed on the questions evaluating participants' perceptions of the defendant's wealth using presence of liability information, injury severity, and the interaction of presence of liability information and injury severity as independent variables and the two questions investigating participants' perceptions of defendant wealth as dependent variables. Presence of liability information did not significantly influence participants' perceptions of defendant wealth, Wilke's Lambda  $F(2, 304) = .33, p > .05$ , and the interaction of presence of liability information and injury severity did not significantly influence participant's perceptions of defendant wealth, Wilke's Lambda  $F(2, 304) = .09, p > .05$ . However, severity of plaintiff's injury did significantly influence participants' perceptions of defendant wealth, Wilke's Lambda  $F(2, 304) = 3.68, p < .05, \eta^2 = .024$ . As shown in table 14, severity of plaintiff's injury (mild or severe) was a significant predictor of perception of the defendant's wealth for question two ("How able is the defendant to financially compensate the plaintiff?").

Table 14

MANOVA Results for Participants' Perceptions of the Defendant's Wealth as a Function of Presence of Liability Information, Injury Severity, and the Interaction of Presence of Liability Information and Injury Severity:: Univariate F-statistics with (1, 305) Degrees of Freedom

Question	Liability		Injury		Liability x Injury	
	F	partial $\eta^2$	F	partial $\eta^2$	F	partial $\eta^2$
1.	.61	.00	4.47*	.01	.00	.00
2.	.29	.00	.69	.00	.08	.00

\* indicates  $p < .05$ .

Participants perceived the wealth of the defendant as greater when the plaintiff was severely injured as opposed to when the plaintiff was mildly injured; these means are displayed in Table 15.

Table 15

Means and Standard Deviations for Participants' Perceptions of Defendant's Wealth as a Function of Manipulated Injury Severity

Question	Mild Injury		Severe Injury	
	<u>Mean</u>	<u>SD</u>	<u>Mean</u>	<u>SD</u>
1	6.80	2.551	7.38	2.23
2	7.25	2.679	7.50	2.75
Mean	7.02	.32	7.44	.09

Descriptive and Correlational Analyses of Attitudes toward Vengeance

The mean for the Vengeance Scale was 62.19 (SD = 17.81) with a Cronbach's alpha of .89. Participants reported being vengeful an average of 1.66 times (SD = 1.54) in the past six months and claimed that they would "get back at" an average of 1.67 people (SD = 2.13) if they could. Score on the Vengeance Scale was positively correlated with participants' self-reports of the number of times they had been vengeful ( $r = .46, p < .01$ ) and the number of people they would "get back at" ( $r = .60, p < .01$ ); the difference between these related correlations was not significant, dependent  $t(308) = 2.99, p > .05$ . Vengeance scores were also correlated with gender. Males were more accepting ( $M = 66.11, SD = 18.09$ ) than females ( $M = 60.19, SD = 17.23$ ) of vengeful attitudes,  $t(1, 309) = 2.83, p < .01, R^2 = .025$ .

### Descriptive Information for Damage Awards

Jurors' compensatory and punitive damage awards in dollar amounts were highly variable and positively skewed. Due to the variability and positive skewness of the untransformed distributions, descriptive statistics include, in addition to means and standard deviations, median values which are influenced less by the presence of extreme outliers in the distribution. Descriptive statistics for the raw data are found in Table 16.

Table 16

### Untransformed Means, Standard Deviations, Medians, Kurtosis, and Skewness for Compensatory and Punitive Damage Awards

<u>Measure</u>	<u>Compensatory Damage Award</u>	<u>Punitive Damage Award</u>
Mean	\$1,828,195.00	\$2,255,654.00
Standard Deviation	\$5,426,614.00	\$7,163,170.00
Median	\$500,000.00	\$250,000.00
Kurtosis	92.93	121.76
SE Kurtosis	.28	.28
Skewness	8.76	9.69
SE Skewness.	.14	.14

For both compensatory and punitive damage awards, both kurtosis and skewness are excessive, and, therefore, data were normalized with a natural log transformation (for examples of natural log transformations, see e.g., Cather, Greene, & Durham, 1996; Chapman & Bornstein, 1996; Coon, Greene, & Bornstein, 1998; Landsman, Diamond, Dimitropoulos, & Saks, in press; Rogers, 1991; Wissler, Evans, Hart, Morry, & Saks, 1997; Woody, Winter, & Greene, 1998). Descriptive statistics for transformed data are presented in Table 17. All analyses were performed on the transformed data, but

untransformed dollar amounts are reported with transformed means for ease of interpretation.

Table 17

Transformed Means, Standard Deviations, Medians, Kurtosis, and Skewness for Compensatory and Punitive Damage Awards

<u>Measure</u>	<u>Compensatory Damage Award</u>	<u>Punitive Damage Award</u>
Mean	12.95	10.61
Standard Deviation	1.88	2.35
Median	13.12	12.43
Kurtosis	-.11	-.03
SE Kurtosis	.28	.28
Skewness	-.34	-1.13
SE Skewness.	.14	.14

Of the 311 participants, 294 provided usable damage awards. Data were rendered unusable most often due to participants' failure to write in an actual dollar value. For example, one participant's compensatory damage award read "I would award Carl Jeansonne enough money to pay his medical bills, his lost wages, and future treatment for pain and suffering." Such responses show correct understanding of legal procedure but are not usable in quantitative analysis.

Two-hundred-ninety-four participants providing usable data either read irrelevant liability information about the event or did not read liability information about the event. Means, standard deviations, and medians of compensatory and punitive damage awards as a function of presence of liability information are shown in Table 18. Participants read a version of the case depicting either a mildly or a severely injured plaintiff. Means, standard

deviations, and medians of dollar amounts and transformed values of compensatory and punitive damage awards as a function of severity of plaintiff injury are shown in Table 19.

Table 18

Untransformed Dollar Amounts and Transformed Data for Compensatory and Punitive Damage Awards as a Function of Presence of Liability Information

	<u>Compensatory Damage Award</u>	
	<u>Untransformed</u>	<u>Transformed</u>
<u>Liability Information (n = 146)</u>		
<u>M</u>	\$1,595,223.00	13.10
<u>SD</u>	\$4,450,751.00	1.65
<u>Median</u>	\$500,000.00	13.12
<u>No Liability Information (n = 148)</u>		
<u>M</u>	\$2,058,017.00	12.80
<u>SD</u>	\$6,248,936.00	2.08
<u>Median</u>	\$500,000.00	13.12
	<u>Punitive Damage Award</u>	
	<u>Untransformed</u>	<u>Transformed</u>
<u>Liability Information (n = 146)</u>		
<u>M</u>	\$2,857,978.00	11.26
<u>SD</u>	\$9,414,056.00	5.08
<u>Median</u>	\$400,000.00	12.90
<u>No Liability Information (n = 148)</u>		
<u>M</u>	\$1,661,470.00	9.98
<u>SD</u>	\$3,760,121.00	5.54
<u>Median</u>	\$150,000.00	11.91

Table 19

Untransformed Dollar Amounts and Transformed Data for Compensatory and Punitive  
Damage Awards as a Function of Severity of Plaintiff's Injury

	<u>Compensatory Damage Award</u>	
	<u>Untransformed</u>	<u>Transformed</u>
<u>Mild Injury (n = 149)</u>		
Mean	\$569,895.80	12.00
Standard Deviation	\$1,234,547.00	1.72
Median	\$200,000.00	12.20
<u>Severe Injury (n = 145)</u>		
Mean	\$3,121,205.00	13.92
Standard Deviation	\$7,418,259.00	1.50
Median	\$1,000,000.00	13.82
	<u>Punitive Damage Award</u>	
	<u>Untransformed</u>	<u>Transformed</u>
<u>Mild Injury (n = 149)</u>		
Mean	\$1,874,784.00	9.09
Standard Deviation	\$8,687,967.00	5.76
Median	\$50,000.00	10.82
<u>Severe Injury (n = 145)</u>		
Mean	\$2,647,031.00	12.19
Standard Deviation	\$5,149,937.00	4.38
Median	\$700,000.00	13.45

### Regression Analyses

The effects of presence of liability information and severity of plaintiff injury on damage awards were investigated through multiple regression. Two regression equations were constructed separately for transformed compensatory damage awards and for transformed punitive damage awards because the dependent measures are conceptually and functionally distinct. Demographic variables, participant age and gender, were entered first in each regression equation, the Vengeance Scale was entered second, and experimental variables (presence or absence of liability information and severity of plaintiff injury) were entered third. The interaction of presence of liability information and severity of plaintiff injury was not expected to systematically affect damage awards. The possibility of interaction effects was explored in preliminary regression analyses, and, when effects of the interaction were not significant, the interaction term was dropped from the regression equation.

Descriptive statistics as well as correlations between variables in the regression equations are displayed in Table 20.

Table 20

Means, Standard Deviations, and Intercorrelations of Variables in Regression Equations

		<u>M</u>	<u>SD</u>	1	2	3	4	5	6	7
1.	Age	18.77	2.47							
2.	Gender	----	----	-.10						
3.	Vengeance	3.11	.89	-.03	-.16**	.89				
4.	Liability Information	----	----	.05	-.01	-.01				
5.	Severity of Injury	----	----	.08	.04	-.04	-.00			
6.	Compensatory Damages	12.95	1.88	.03	-.13*	.10	-.07	.48**		
7.	Punitive Damages	12.87	2.43	.06	-.01	-.05	-.11	.27**	.40**	

Note. Gender is coded one = male and two = female. Vengeance mean is the mean per item on the Vengeance Scale, and Cronbach's alpha for the Vengeance mean appears on the diagonal. Liability information is coded one = liability information present, and two = no liability information present. Severity of injury is coded one = mild injury, and two = severe injury.

\* indicates  $p < .05$ , \*\* indicates  $p < .01$ . All significance tests are two-tailed.

As shown in Table 21, the entire regression equation explained a significant amount of variance in compensatory damage awards,  $F(5, 293) = 21.07$ ,  $p < .01$ ,  $R^2 = .264$ .

Table 21

Results of Regression Analysis for Transformed Compensatory Damages Award

<u>Step</u>	<u>Variable</u>	<u>R2</u>	<u>ΔR2</u>	<u>b</u>	<u>se b</u>	<u>β</u>
<u>Demographic Variables</u>						
1	Age	.00	.00	-.04	.04	-.04
2	Gender	.02	.02	-.58	.23	-.13*
<u>Personality Variable</u>						
3	Vengeance Mean	.02	.00	.22	.12	.09
<u>Independent Variables</u>						
4	Liability Information	.03	.01	-.28	.22	-.06
5	Injury Severity	.26	.23	2.09	.79	.49**

Note. Gender is coded one = male and two = female. Vengeance mean is the mean per item on the Vengeance Scale. Liability information is coded one = liability information present, and two = no liability information present. Severity of injury is coded one = mild injury, and two = severe injury.

\* indicates  $p < .05$ , \*\* indicates  $p < .01$ . All significance tests are two-tailed. b, se b, and β are with all variables entered in the equation.

Only one demographic variable and one experimental variable were significant. Gender was a significant predictor of compensatory damage awards. Compensatory damage awards assigned by males ( $M = \$2,504,697.00$ ,  $SD = \$8,241,583.00$ , median = \$694,160.00; transformed mean = 13.39,  $SD = 1.69$ , median = 13.45) were higher than

compensatory damage awards assigned by females ( $M = \$1,453,189.00$ ,  $SD = \$2,953,755.00$ , median = \$500,000.00; transformed mean = 12.66,  $SD = 2.13$ , median = 13.12). Participant age and score on the Vengeance Scale were not significant predictors. Injury severity was a significant predictor of compensatory damage awards. Compensatory awards assigned by participants who read of a severely injured plaintiff ( $M = \$3,121,205.00$ ,  $SD = \$7,418,259.00$ , median = \$1,000,000.00; transformed mean = 13.92,  $SD = 1.50$ , median = 13.82) were higher than compensatory awards assigned by participants who read of a mildly injured plaintiff ( $M = \$569,895.80$ ,  $SD = \$1,234,547.00$ , median = \$200,000.00; transformed mean = 12.00,  $SD = 1.72$ , median = 12.20). Presence of liability information was not a significant predictor of transformed compensatory damage awards.

A second regression equation was constructed to test the effects of the variables described above on transformed punitive damage awards. The regression equation explained a significant amount of variance in punitive damage awards,  $F(5, 299) = 5.92$ ,  $p < .001$ ,  $R^2 = .090$ . As shown in Table 22, only severity of plaintiff injury was a significant predictor of punitive damage awards. Punitive damage awards assigned by participants who read of a severely injured plaintiff ( $M = \$2,647,031.00$ ,  $SD = \$5,149,937.00$ , median = \$700,000.00; transformed mean = 12.19,  $SD = 4.38$ , median = 13.45) were higher than punitive damage awards assigned by participants who read of a mildly injured plaintiff ( $M = \$1,874,784.00$ ,  $SD = \$8,687,967.00$ , median = \$50,000.00; transformed mean = 9.09,  $SD = 5.76$ , median = 10.82).

Additionally, chi-square analyses were performed to investigate the effects of the independent variables on participants' willingness to award punitive damages. Presence of liability information was not influential on participants' decisions to assign punitive damage awards,  $\chi^2(1) = .52$ ,  $p > .05$ . However, one-hundred-thirty-four of the 149 participants (89.9 percent) reading of the plaintiff's severe injuries awarded punitive damages, and 115 of the 156 participants (73.4 percent) reading of the plaintiff's mild injuries awarded

punitive damages; the depicted severity of the plaintiff's injury was a significant predictor of whether or not participants were willing to assign punitive damages,  $\chi^2(1) = 5.31, p < .05, \phi = .132$ . A chi-square test of association was performed to determine whether or not there were interaction effects between the independent variables on participants' willingness to assign punitive damages, but the interaction was not significant,  $\chi^2(1) = .43, p > .05$ .

Table 22

Regression Results for Transformed Punitive Damages Award

<u>Step</u>	<u>Variable</u>	<u>R<sup>2</sup></u>	<u>ΔR<sup>2</sup></u>	<u>b</u>	<u>se b</u>	<u>β</u>
<u>Demographic Variables</u>						
1	Age	.00	.00	.00	.12	.00
2	Gender	.00	.00	-.32	.64	-.03
<u>Personality Variable</u>						
3	Vengeance Mean	.01	.01	-.24	.34	-.04
<u>Independent Variables</u>						
4	Liability Information	.02	.01	-1.18	.60	-.11
5	Injury Severity	.09	.07	2.95	.60	.27**

Note. Gender is coded one = male and two = female. Vengeance mean is the mean per item on the Vengeance Scale. Liability information is coded one = liability information present, and two = no liability information present. Severity of injury is coded one = mild injury, and two = severe injury.

\*\* indicates  $p < .01$ . All significance tests are two-tailed. b, se b, and β are with all variables entered in the equation.

### Participants' Self-Report of Information Use

A final series of questions asked participants to use a 10-point Likert scale to rate the importance of various possible factors relevant in their decision making for compensatory and punitive damage awards. Items investigated participants' self-report for correct and incorrect use of information relevant to their damage awards.

Compensatory Damage Awards. A set of seven questions (see Table 23) evaluated participants' self-reported use of correct information (information relevant to the plaintiff's injuries) to assess a compensatory damage award. Three-hundred-nine participants made usable responses to the questions; two participants left questions unanswered.

Table 23

Descriptive statistics and Cronbach's alpha for questions investigating participants' reported correct use of compensatory information to decide compensatory damages

To what extent did each of the following factors influence your decision about a compensatory damages award?

<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. the severity of the plaintiff's injuries	7.99	2.03
2. the cost of treating the plaintiff's injuries	8.42	1.84
3. the lost earning capacity of the plaintiff	7.59	2.12
4. the plaintiff's likely pain and suffering	7.68	2.15

To what extent will the compensatory damage award you assigned:

<u>Question</u>	<u>Mean</u>	<u>SD</u>
5. reimburse the plaintiff for his lost earning capacity	8.26	1.88
6. reimburse the plaintiff for his medical costs	8.61	1.67
7. pay the plaintiff for his pain and suffering	6.22	2.95
Mean response on all questions	7.83	1.29

Cronbach's alpha = .7139

Five questions (see Table 24) investigated participants' self-reported use of incorrect information (information relevant only to the punitive damage award, e.g., the defendant's conduct and wealth) to decide the compensatory damage award.

Table 24

Descriptive statistics and Cronbach's alpha for questions investigating participants' reported incorrect use of compensatory information to decide compensatory damages

---

To what extent did each of the following factors influence your decision about a compensatory damages award?

---

<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. the actions of the defendant	6.11	2.80
2. the ability of the defendant to compensate the plaintiff	5.34	2.91

---

To what extent will the compensatory damage award you assigned:

---

<u>Question</u>	<u>Mean</u>	<u>SD</u>
3. punish the defendant, Stevenson Trucking	5.70	2.67
4. cause the defendant to be more careful in the future	6.72	2.80
5. cause other trucking companies to be more careful in the future	6.18	2.84
Mean response on all five questions	6.02	2.07

---

Cronbach's alpha = .79

---

Participants reported more use of correct information (mean across all seven questions = 7.83, SD = 1.29) than incorrect information (mean across all five questions = 6.02, SD = 2.07) to decide compensatory damage awards, dependent  $t(308) = 15.96$ ,  $p < .001$ ,  $R^2 = .453$ . However, participants' self-reported incorrect use of information to decide compensatory damage awards was significantly greater than zero, one-sample  $t(308) = 51.20$ ,  $p < .001$ .

An exploratory principal components analysis was performed on all twelve questions addressing participants' self-reports of information use for compensatory damage awards. The Kaiser rule was used for principal component extraction (see Stevens, 1996, p. 366; Kaiser, 1960), and four factors were extracted with eigenvalues greater than one. Varimax factor rotation did not make the factors more interpretable, and therefore the results after factor rotation are not presented. The first principal component had an eigenvalue of 3.81 and accounted for 31.7 percent of the variance, the second principal component had an eigenvalue of 1.84 accounted for 15.3 percent of the variance, and the third and fourth principal components had eigenvalues of 1.37 and 1.12 and accounted for 11.4 and 9.4 percent of the variance respectively; the four principal components explained a cumulative 67.8 percent of the total variance.

Table 25

Communality and Factor Loadings from the Exploratory Principle Components Analysis of All Questions Addressing Participants' Self-Reports of Use of Compensatory Damages Information

Variable	Communality	PC 1	PC 2	PC 3	PC 4
<u>Correct</u>					
1	.76	.60	.36	-.45	-.28
2	.62	.48	.51	-.36	-.01
3	.59	.54	.40	-.25	.26
4	.63	.61	.04	-.40	-.32
5	.78	.51	.49	.40	.33
6	.73	.46	.47	.53	.14
7	.55	.39	.16	.51	-.33
<u>Incorrect</u>					
1	.67	.50	-.45	-.16	.44
2	.70	.47	-.34	.12	.58
3	.67	.69	-.41	.10	-.14
4	.74	.70	-.41	.18	-.23
5	.70	.70	-.40	.17	-.18

As shown in Table 25, the first principal component loaded evenly across all variables, and therefore it was interpreted as participants' reported general tendency to respond positively to the information-use questions. The second factor was positively correlated with questions addressing the correct use of compensatory damages information and was negatively correlated with questions addressing the incorrect use of compensatory damages information. Therefore, the second factor appeared to describe the correct use of

compensatory damages information. The third and fourth factors were not easily interpreted.

Punitive Damage Awards. A set of five questions (see Table 26) evaluated participants' self reported use of correct information (information relevant to the conduct and wealth of the defendant) to decide upon a punitive damage award. Two-hundred-ninety-seven participants made usable responses to the questions; twelve participants left questions unanswered, although only eleven left responses regarding inappropriate use of Table 26

Descriptive statistics and Cronbach's alpha for questions investigating participants' reported correct use of punitive information to decide punitive damages

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To what extent did each of the following factors influence your decision about a Punitive damages award?

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<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. the actions of the defendant	7.72	2.75
2. the ability of the defendant to compensate the plaintiff	6.76	3.02

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To what extent will the punitive damage award you assigned:

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<u>Question</u>	<u>Mean</u>	<u>SD</u>
3. punish the defendant, Stevenson Trucking	6.45	2.95
4. cause the defendant to be more careful in the future	6.96	2.93
5. cause other trucking companies to be more careful in the future	6.50	2.95
Mean response on all five questions	6.87	2.41

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Cronbach's alpha = .88

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punitive damages questions unanswered. Seven questions (see Table 27) investigated participants' self-reported use of incorrect information (information relevant only to the compensatory damage award, e.g., the severity of the plaintiff's injuries) to decide the punitive damage award.

Table 27

Descriptive statistics and Cronbach's alpha for questions investigating participants' reported incorrect use of punitive information to decide punitive damages

To what extent did each of the following factors influence your decision about a punitive damages award?

<u>Question</u>	<u>Mean</u>	<u>SD</u>
1. the severity of the plaintiff's injuries	6.49	3.07
2. the cost of treating the plaintiff's injuries	6.42	3.12
3. the lost earning capacity of the plaintiff	6.08	3.09
4. the plaintiff's likely pain and suffering	6.33	3.13

To what extent will the punitive damage award you assigned:

<u>Question</u>	<u>Mean</u>	<u>SD</u>
5. reimburse the plaintiff for his lost earning capacity	6.59	3.26
6. reimburse the plaintiff for his medical costs	6.60	3.33
7. pay the plaintiff for his pain and suffering	5.61	3.40
Mean response on all questions	6.30	2.56

Cronbach's alpha = .90

Participants reported more use of correct information (mean across all five questions = 6.87,  $SD = 2.41$ ) than incorrect information (mean across all seven questions = 6.30,  $SD = 2.56$ ) to decide compensatory damage awards, dependent  $t(296) = -3.81$ ,  $p < .001$ ,  $R^2 = .047$ . However, participants' self-reported incorrect use of information to decide punitive damage awards was significantly greater than zero,  $t(297) = 42.65$ ,  $p < .001$ .

An exploratory principal components analysis was performed on the twelve questions addressing participants' self-reported use of punitive damages information. Three principal components with eigenvalues greater than one were extracted, respectively having eigenvalues of 5.84, 2.37, and 1.10 and explaining 48.7, 19.7, and 9.1 percent of the variance; they therefore addressed a cumulative 77.5 percent of the total variance. Again, varimax factor rotation did not improve the ease with which the factors were interpreted, and so the results of the factor rotation are disregarded. As shown in Table 28, the first principal component loaded across all variables, and hence it appeared to represent participants' tendency to respond positively to questions addressing use of punitive damages information. The second principal component was positively correlated with items addressing correct use of punitive damages evidence, and negatively correlated with items addressing incorrect use of punitive damages evidence. Therefore, the second principal components appeared to represent participants' self-reports of correctly using punitive damages evidence. The third principal component was not easily interpretable.

Table 28

Communality and Factor Loadings from the Exploratory Principle Components Analysis of All Questions Addressing Participants' Self-Reports of Use of Punitive Damages Information

Variable	Communality	PC 1	PC 2	PC 3
<u>Correct</u>				
1	.65	.55	.47	.36
2	.49	.53	.45	.09
3	.78	.72	.51	.08
4	.80	.72	.51	.13
5	.76	.69	.48	.21
<u>Incorrect</u>				
1	.85	.71	-.52	.27
2	.89	.71	-.60	.16
3	.84	.71	-.56	.15
4	.78	.72	-.47	.21
5	.87	.80	-.06	-.47
6	.88	.80	-.07	-.49
7	.72	.66	.12	-.52

## CHAPTER 4

### DISCUSSION

#### Overview

Materials which follow will explore ideas suggested by the present work. First, effects of experimental manipulations will be evaluated in reference to participants' perceptions of the trial stimuli. Second, effects of presence of liability information, severity of injury, and attitudes toward vengeance will be examined in relationship to compensatory damage awards and punitive damage awards. Third, vengeance, as such, will be discussed in light of the current findings. Finally, participants' self-reports of correct and incorrect use of legal information will be presented. The conclusion will consider limitations of the research as well as possibilities for future investigation.

#### Presence of Liability Information Manipulation Effectiveness

The presence of liability information had no significant effects on participants' perceptions of the trial stimulus or on damage awards (see below). Additionally, no effects were found involving the interaction between presence of liability information and severity of injury. Therefore, only the manipulation effectiveness of the severity of injury manipulation on participants' perception of the trial stimulus are discussed in what follows.

#### Severity of Injury Manipulation Effectiveness

Severity of injury to the plaintiff was depicted as either mild or severe. Obviously, if the effects of different levels of the independent variable are to be discussed meaningfully, differences between conditions must be discernible to participants. Presumably, because severity of plaintiff injury affected punitive damages awards, severity of plaintiff injury appears to have affected participants' perceptions of variables related to

punitive damage awards, i.e., the conduct and wealth of the defendant. Effects of differences in severity of plaintiff injury reverberated through other, legally distinct, aspects of the trial stimulus, and these effects will be investigated in the following materials.

Participants' perceptions of plaintiff injury. Depicted severity of injury to the plaintiff affected participants' perceptions of the plaintiff's injury. Greene (1997) found that participants perceived the severe injury as significantly more severe than the mild injury; her findings provided the basis for selecting the manipulations used in the trial stimulus in the present research. Participants in the present study rated the plaintiff in the severe injury condition as significantly more injured than the plaintiff in the mild injury condition across all measures of injury severity. The single principal component generated in the exploratory principal components analysis explained 61.8 percent of the variance. This single principal component and the high Cronbach's alpha (.92) indicate that all measures address a single construct, and the MANOVA results ( $p < .001$ ,  $\eta^2 = .739$ ) demonstrate that depicted injury severity exerts significant influence on participants' perception of the plaintiff's injury (see also Table 5). Therefore, the manipulation appears to have been sufficiently robust, and the significant effects of injury severity on compensatory damages support this contention.

Participants' perceptions of the plaintiff's injuries were significantly correlated with compensatory awards (see Table 4). The correlation provides additional support for the finding that severity of the plaintiff's injury systematically drives compensatory damage awards. However, as shown in Table 4, participants' perceptions of plaintiff injury were also correlated with punitive damage awards. This provides further evidence that a plaintiff's injury could inappropriately influence the eventual amount of punitive damage awards.

A regression equation constructed to examine the contributions of various aspects of injury to participants' compensatory damage award was ineffective; participants' perceptions of specific aspects of the plaintiff's injury were highly correlated and none

predicted compensatory damage awards beyond the others. Additionally, a regression equation was designed to reveal the specific factors which made the most important contributions to participants' perceptions of the overall severity plaintiff injury above and beyond the other criteria. The present research both confirms and challenges aspects of previous investigations into injury characteristics (see Wissler, Evans, Hart, Morry, & Saks, 1997). Wissler, Evans, Hart, Morry, and Saks (1997) found that the most important contributors to participants' perception of duration and severity of injury were the plaintiff's degree of disability and the mental suffering of the plaintiff. The present research partially supports these findings; the degree to which participants perceive the plaintiff to be permanently disabled made significant contributions to participants' perceptions of injury severity ( $\beta = .22$ ,  $p < .01$ ,  $\Delta R^2 = .08$ ). However, although duration of mental suffering was significantly related to participants' perceptions of injury severity -- although the effect size is small -- ( $\beta = .10$ ,  $p < .05$ ,  $\Delta R^2 = .02$ ), degree of mental suffering was not related to participants' perceptions of injury severity. Furthermore, the present research found degree of physical pain ( $\beta = .20$ ,  $p < .01$ ,  $\Delta R^2 = .24$ ), duration of physical pain ( $\beta = .8$ ,  $p < .05$ ,  $\Delta R^2 = .01$ ), and visibility of the plaintiff's injuries ( $\beta = .35$ ,  $p < .01$ ,  $\Delta R^2 = .03$ ) to be significant predictors of participants' perceptions of the overall severity of the plaintiff's injuries. Although jurors' perceptions of the plaintiff's injury are expected by legal scholars to be associated with feelings of sympathy for the plaintiff (see Vidmar, 1995), the relationship was not significant ( $\beta = .06$ ,  $p > .05$ ). Future research is necessary to further the understanding of the factors that influence jurors' perceptions of a plaintiff's injuries which in turn are associated with both compensatory and punitive damage awards.

Participants' perceptions of defendant conduct. The Cronbach's alpha of .78 and the single principal component produced in the exploratory principal components analysis which explained 53.5 percent of the variance suggest that participants' perceptions of the defendant's conduct addressed a single construct. The conduct of the defendant was not

manipulated in the present research. Therefore, participants' perceptions of the defendant's conduct should be consistent across all conditions. However, participants' perceptions of the defendant's conduct were systematically influenced by the severity of the plaintiff's injury. The degree to which participants perceived the defendant's actions as "malicious," "morally wrong," and "selfish and greedy" as well as the extent to which participants believed that the defendant should be punished were significantly influenced by injury severity (see Table 10). A more severe outcome dictated more severe perceptions of the actions leading to the accident.

The influence of the severity of the plaintiff's injury on participants' perceptions of the defendant's conduct appears further to implicate hindsight bias as an explanation of punitive damage awards. Perceiving an outcome as more severe (severe injury as opposed to mild injury) influenced participants' perceptions of the events leading to the outcome. Specifically, the conduct of the defendant was perceived as more egregious and wanton when the defendant was more severely injured. Perceptions of the behavior of the defendant were contingent upon participants' knowledge of the outcome of such behavior. This evidence further buttresses the work of other researchers who claim that outcome information can bias jurors' perceptions of the actions leading to such outcomes (Casper, Benedict & Perry, 1989; Kamin & Rachlinski, 1995; LaBine & LaBine, 1996; Stallard & Worthington, 1998; Wexler & Schopp, 1989).

Punitive damage awards should reflect the conduct of the defendant. Although responses to questions four and five were correlated with compensatory damage awards, responses to all questions were significantly correlated with punitive damage awards ( $r = .15$ ,  $r = .28$ ,  $r = .32$ ,  $r = .15$ , and  $r = .45$ , respectively,  $p < .01$ ). Therefore, jurors appear to be using information appropriately with respect to defendant conduct to decide punitive damage awards, even when such information is inappropriately influenced by the severity of the plaintiff's injury.

As mentioned above, two correlations between participants' perceptions of defendant conduct and compensatory damages were significant. These relatively small correlations ( $r = .15$  and  $r = .19$ , respectively,  $p < .01$ ) could indicate fusion of punitive damage information in the form of jurors' perceptions of defendant conduct into compensatory damage awards. However, the small number and size of the correlations combined is not sufficient to challenge the results of Cather, Greene, and Durham (1996) and Woody, Greene, and Winter (1998). Both studies suggest that jurors can appropriately separate information regarding defendant conduct from compensatory damage awards. Future investigation could illuminate the discrepancies between the present correlations of juror perceptions with compensatory damage awards and the nonsignificant findings of previous researchers utilizing similar paradigms.

Participants' perceptions of defendant wealth. The two questions regarding participants' perceptions of defendant wealth appear to address a single construct; Cronbach's alpha was .91, and the single principal component generated by the exploratory principal components analysis explained 91.8 percent of the variance. Wealth of the defendant was not manipulated in the current research. However, participants' perceptions of defendant wealth were significantly related to the severity of the plaintiff's injury. Responses to only one question regarding the defendant's wealth ("How wealthy is the defendant?") were significantly related to the severity of the plaintiff's injury. The relationship, although significant ( $p < .05$ ), had a small effect size, (partial  $\eta^2 = .014$ ). Thus, there is some evidence that jurors' perceptions of the wealth of the defendant are driven by outcome information, although the effects are not large.

The relation of plaintiff's injury severity to participants' perceptions of defendant's wealth was small; therefore, one should turn to correlational data relating perception of defendant wealth to compensatory damage awards. Participants' perceptions of the wealth of the plaintiff were unrelated to participants' compensatory damage awards (all  $p > .05$ ). Therefore, in accordance with results reported by Greene, Woody, and Winter (1998), it

does not appear that jurors are inappropriately utilizing information regarding defendant wealth to decide compensatory damage awards. Additionally, because the correlations between defendant wealth and compensatory damage awards were small, the "deep-pockets" hypothesis can once again be rejected on the basis of the results in the present work. Defendants perceived as more wealthy were not assessed higher compensatory damage awards; this finding supports previous research (Hans & Ermann, 1989; MacCoun, 1996; Vidmar, Lee, Cohen, & Stewart, 1994).

Although jurors' perceptions of the defendant's wealth were unrelated to compensatory damage awards, they were correlated with punitive damage awards (for both questions,  $r = .18$ ,  $p < .01$ ). Therefore, it appears that jurors are appropriately using information about defendant wealth to decide punitive damage awards. These results are consistent with the outcomes reported by Greene, Woody, and Winter (1998).

#### Compensatory Damages

As stated earlier, compensatory damages are intended to compensate the plaintiff for injury by returning the plaintiff to a previous level of functioning and righting the wrongs caused by the defendant. Compensatory damages should reflect both economic losses, such as medical bills and lost wages, and non-economic losses, such as pain and suffering, emotional stress, and impairment of quality of life. Legal theory dictates that compensatory damages should reflect the severity of the plaintiff's injury while remaining unaffected by the presence of liability information and by jurors' perceptions of actions of the plaintiff.

Age. Age was included as a variable of investigation because participant age was expected to be related to attitudes toward vengeance. However, age of participants was not associated in any systematic ways with compensatory damage awards ( $\beta = -.02$ ,  $p > .05$ ).

Gender. There was no expectation that gender of participants would have any influence on judgments of compensatory damage awards. Indeed, many researchers (e.g., Bornstein, in press; Cather, Greene, & Durham, 1996; Feigenson, Park, & Salovey, in press; Hart, Evans, Wissler, Feehan, & Saks, 1997; Horowitz & Bordens, 1990;

Landsman, Diamond, Dimitropoulos, & Saks, in press; Vidmar, Lee, Cohen, & Stewart, 1994; Wissler, Evans, Hart, Morry, & Saks, 1997; Woody, Winter, & Greene, 1998) disregard participant gender as a useful topic of investigation. Such disregard appears justified; several researchers who have searched for gender effects have found nonsignificant results (e.g., Bornstein, 1994; Fishfader, Howells, Katz & Teresi, 1996; Goodman, Greene, & Loftus, 1989; Hans & Ermann, 1989; Kamin & Rachlinski, 1995; MacCoun, 1996; Rogers, 1991). Gender was included in the present research due to its possible relationship to vengeance, but no effects were expected with respect to gender and compensatory damage awards. However, although effect sizes are small ( $p < .05$ ,  $\Delta R^2 = .017$ ), gender was a significant predictor of compensatory damage awards; male participants assessed higher awards than female participants. Such results corroborate the work of Hastie, Schkade, and Payne (1999b) who also found small but significant effects of gender with males assigning higher compensatory damage awards than females.

There are several possible explanations for the small but significant gender effect. First, participants reported using compensatory damage awards to punish the defendant (see participants' self reports, below), and male participants scored higher than females on the Vengeance Scale. It may be possible that male participants, more than female participants, could be using the compensatory damage award retributively. On the other hand, the low correlation between scores on the Vengeance Scale and compensatory damage awards challenges the above explanation. Another possibility is that males may be more likely than females to award higher damages across all types of civil trials. This contention receives support from the work of Hastie, Schkade, and Payne (1999b). Still another possibility is that males may be more likely than females to identify with the male victim injured through the actions of the defendant, and therefore men may be more likely to award higher damages to the injured party. It may be noted that a similar relationship exists in sexual assault trials; women are more likely than men to find a male defendant guilty of assaulting a woman, in part due to identification with the victim (see e.g.,

Villemur & Hyde, 1983; McNamara, Vattano, & Viney, 1993; Weir & Wrightsman, 1990; Nelligan, 1988; Yarmey, 1985; Lyons & Regina, 1986; MacRae & Shepherd, 1989; Kerr, Atkin, Stasser, Holt, & Davis, 1976). The second or third explanation appears plausible, but the present research provided no explicit test or comparison which could provide support for such explanations. Future research on gender and compensatory damage awards could be designed to explore these questions.

Attitudes toward Vengeance. There was no significant relationship between jurors' attitudes toward vengeance and compensatory damage awards ( $\beta = .09, p > .05$ ). Historically, vengeance has played no appreciable legal role in the development or modern use of compensatory damages. In theory, a compensatory damage award, if used appropriately by jurors, is not expected to function, either legally or psychologically, as an outlet for vengeance. Such an assumption is supported by the current research.

Presence of liability information. *Fuentes v. Tucker* (1947) illuminated within the civil justice system several general assumptions pertinent to the presence of liability information. To recapitulate, in *Fuentes v. Tucker* (1947) liability was stipulated and information regarding liability was irrelevant to decisions about damage awards. Nevertheless, the jury was allowed to hear details of the event before deciding on a compensatory damage award. As described in the previous discussion of *Fuentes v. Tucker* (1947) (see chapter 1), a California appeals judge expected that irrelevant liability information would influence the jury's compensatory damage award, but because the judge did not deem the jury's compensatory award inappropriate, the award was allowed to stand. Again, the judge "recognize[d] the human tendency to weigh liability [in compensation]" (*Fuentes v. Tucker*, 1947, p. 19). The judge deemed it reasonable to assume that liability information would influence compensatory damage awards.

There is much evidence for intrusion of extra-legal information such as pretrial publicity (see e.g., Borgida, DeBono, & Buckman, 1990; Burke, 1998; Carroll, Kerr, Alfini, Weaver, MacCoun, & Feldman, 1986; Davis, 1986; Dexter, Cutler, & Moran,

1992; Fulero, 1987; Hans & Dee, 1991; Greene, 1990; Greene & Loftus, 1984; Greene & Wade, 1988; Hoiberg & Stires, 1973; Kerr, 1995; Kramer, Kerr, & Carroll, 1990; Loftus, 1979; Moran & Cutler, 1991; Ogloff & Vidmar, 1994; Otto, Penrod, & Dexter, 1994; Ridley, 1998; Riedel, 1994; Roberts & Doob, 1990; Sue, Smith, & Gilbert, 1974; Sue, Smith & Pedroza, 1975; Woody, 1994, 1996) and inadmissible or irrelevant evidence or testimony (see e.g., Cox & Tanford, 1989; Fein, McCloskey & Tomlinson, 1997; Kassin & Sommers, 1997; Kerwin & Shaffer, 1994; Landsman & Rakos, 1994; London, Nunez, & Shoefelt, 1998; Pickel, 1995; Rind, Jaeger, & Strohmets, 1995) into courtroom settings, and empirical evidence supports the fusion of the quality of liability information into compensatory damage awards. Kalven (1958) speculated on the possibility of such fusion and its potential ramifications in the civil legal system. Early research validated his concerns; Broeder (1959) found that compensatory damage awards correlated with the strength of liability evidence against the defendant. Researchers investigating the quality or the clarity of liability information (e.g., Baron & Ritov, 1993; Chapman & Bornstein, 1996) as well as those investigating comparative negligence (e.g., Feigenson, Park, & Salovey, in press) have also reported fusion of liability information and damage awards, and the concerns justified by these researchers are reflected in the assumptions of the commenting appeals judge in *Fuentes v. Tucker* (1947). Other researchers, however, have challenged the above findings by demonstrating independence of defendant conduct and participants' injury ratings (Wissler, Evans, Hart, Morry, & Saks, 1997).

The present research generally addressed the relationship between compensatory damage awards and information related to liability. More specifically, the present research investigated the potentially biasing effects of the presence of liability information in civil cases in which liability information is irrelevant. Presence of liability information did not systematically affect participants' compensatory damage awards ( $\beta = -.06$ ,  $p > .05$ ). This conclusion challenges the assumptions of the commenting appeals judge in *Fuentes v. Tucker* (1947). The results of the present study indicate that merely presenting liability

information to jury members does not significantly influence their decisions about compensatory damages. The appeals judge in *Fuentes v. Tucker* (1947) assumed that liability information often fuses with compensatory damage awards. Therefore, the judge concluded that it would have been prejudicial to prevent the presentation of liability information to the jury. However, when liability is determined in advance, the presence of irrelevant liability information has no effect on jurors' compensatory damage awards; jurors appear to be able to appropriately ignore liability information in this situation. Ironically, the judge's final decision to deny Tucker an appeal of the case is supported by the present research. It does not appear that a second trial in which the jury was not allowed to hear information about the event in question would lead to lower compensatory damage awards. The presence of liability information had significant effects on neither jurors' damage awards nor jurors' perceptions of plaintiff injury; such results further deny the importance of the presence of liability information.

Severity of injury. Injury severity was also expected to drive compensatory damage awards. The severity of the plaintiff's injury directly affects economic damages; a more severe injury to the plaintiff would lead to higher medical bills and a more extended period of lost income. Additionally, injury severity should also affect non-economic losses; a more severely injured plaintiff would experience more pain and suffering, more emotional stress, a greater change in life style, and more severe and more visible disfigurement. Therefore, severity of injury was expected, both psychologically and legally, to influence jurors' compensatory damage awards.

Participants perceived the plaintiff depicted as severely injured as more injured than the plaintiff depicted as mildly injured (see above). Compensatory damages reflect participants' perceptions. The plaintiff depicted as severely injured was awarded higher compensatory damages than the plaintiff depicted as mildly injured ( $\beta = -.128$ ,  $p < .01$ ,  $\Delta R^2 = .235$ ). Results of the present study indicate that jurors are appropriately using

severity of injury information to decide compensatory damages. Thus, compensatory damages are functioning properly in this context.

### Punitive Damages

As described in Chapter 1, punitive damages serve several functions in the American civil legal system. Punitive damages function primarily to punish the defendant for wrongdoing and to deter the defendant from future inappropriate behavior (Rustad & Koenig, 1993; Sales & Cole, 1984). Additionally, punitive damages may serve educational and preventive goals, and such damages may also facilitate enforcement of the law (Owen, 1994). Most controversially, punitive damages may provide retribution for the plaintiff (Hastie, Schkade, & Payne, 1999b, 1999c; Owen, 1994). In earlier discussions it was noted that vengeance formed an integral function of early punitive damage awards, but the modern legal system maintains that vengeance is not a legitimate motivation for legal action in the civil courtroom.

Presumably, punitive damage awards should be driven by two main factors, defendant conduct and defendant wealth. The severity of the defendant's wanton misconduct determines the degree to which the defendant merits legal and financial punishment. In the present research, the defendant was portrayed as grossly negligent (adapted from the "highly reprehensible" condition used by Greene, Woody, and Winter, 1998) and therefore deserving to be assessed punitive damages. The defendant was also portrayed as extremely wealthy (adapted from the "wealthy" condition used by Greene, Woody, and Winter, 1998). Therefore, punitive damages were expected to be seen as appropriate by most participants. However, neither the defendant's conduct nor the defendant's wealth were manipulated in the present research. Therefore, legal theory dictates that there should be no differences in punitive damage awards across experimental conditions.

Age. Age was expected to be correlated with attitudes toward vengeance (Cota-McKinley & Woody, 1998) which were expected, in turn, to correlate with punitive

damage awards if such awards are functioning as strong outlets for vengeful motives. However, in the present research, participant age was not systematically associated with participants' punitive damage awards ( $\beta = -.04, p > .05$ ). Such results fit into the whole of the statistical picture: participant age was not correlated with vengeance, and, in turn, vengeance was not systematically related to punitive damage awards.

Gender. Gender was included in the punitive damages regression equation largely because gender was expected to correlate with attitudes toward vengeance and therefore punitive damage awards. However, jurors' gender does not appear to be significantly associated with their decisions regarding punitive damage awards ( $\beta = -.03, p > .05$ ). The absence of a gender effect supports earlier work (see e.g., Bornstein, 1994; Fishfader, Howells, Katz & Teresi, 1996; Goodman, Greene, & Loftus, 1989; Hans & Ermann, 1989; Kamin & Rachlinski, 1995; MacCoun, 1996; Rogers, 1991) and increases the confidence with which vengeance is disassociated with punitive damage awards.

Attitudes toward Vengeance. Attitudes toward vengeance did not significantly predict jurors' punitive damage awards ( $\beta = -.04, p > .05$ ). Although, as discussed in Chapter 1, vengeance formed a motivation for the development of early punitive damage awards (see Rustad & Koenig, 1993; Sales & Cole, 1984) and although several social, legal, and psychological authorities see vengeance as alive and well in the civil courtroom (e.g., Jacoby, 1987; Hastie, Schkade, & Payne, 1999b, 1999c; Owen, 1994), the present research does not support concerns that vengeful motivations drive jurors' punitive damage awards. Participants' attitudes toward vengeance were unrelated to punitive damage awards, challenging notions that punitive awards allow the plaintiff to seek vengeance against the defendant with the aid of the jury.

Presence of liability information. The presence of liability information is legally irrelevant to jurors' decisions of punitive damage awards. Therefore, no effects of presence of liability information were expected in the current research. Psychologically, for liability information to affect punitive awards, participants would need to recall and

evaluate such information when determining punitive damage awards. Presumably, liability information, in the form of closing arguments from defense attorneys, would pale when contrasted with punitive damages evidence graphically depicting the deplorable hiring practices and significant wealth of the defendant. Concern that participant exposure to punitive damages evidence might render the liability evidence trivial was the motivation for bifurcating the trial stimulus. Therefore, legally, psychologically, and methodologically, there were no expected effects of presence of liability information on punitive damage awards, and the experimental data support this contention ( $\beta = -.11$ ,  $p > .05$ ).

Additionally, presence of liability information had no effects on participants' perceptions of the conduct or wealth of the defendant, both of which are expected to be associated with punitive damage awards. Consequently, the experimental results are in line with interpretations of manipulation effectiveness data.

Severity of injury. Research investigating fusion of compensatory damage information into punitive damage awards has resulted in conflicting findings. As discussed above, researchers have reported that manipulations of outcome information, both in the form of degree of personal injury severity (Cather, Greene & Durham, 1996) and in the form of environmental damage (Hastie, Schkade, & Payne, 1999a), have found no effect on punitive damage awards. However, some indications have been found to suggest that jurors may use compensatory damage information to decide punitive damages (Hastie, Schkade, & Payne, 1999b) or to achieve goals associated with punitive damage awards such as punishment of the defendant (see Bornstein, in press). The present research directly assessed the possibility of fusion of compensatory damages information into punitive damage awards.

Jurors in the present research, as well as jurors in all civil trials, must make decisions about actions for which consequences are already known. In the present study, jurors were required to evaluate the hiring practices of a company after learning that such hiring practices led to the injury of an innocent citizen. The described hiring practices were

designed to be grossly inappropriate (see appendix L) so that punitive damages would be viewed as justified by participants and so that the amount of punitive damages could be used as a relevant dependent variable. However, participants knew that the outcome -- the accident and accompanying personal injury -- resulted from the hiring decisions made by the defendant. Therefore, findings from the present study can be applied to the body of research investigating hindsight bias.

Hindsight bias generally revolves around whether or not outcome information is known, and effect sizes are small but reliable (Christensen-Szalanski & Willham, 1991). Once an event has occurred, participants generally view the outcome as the most likely product of the events that produced it (Fischhoff, 1975). Legal researchers investigating hindsight bias generally agree that providing outcome information does influence perception of the event (see e.g., Arkes, 1989; Casper, Benedict, & Perry, 1989; Kamin & Rachlinski, 1995; LaBine & LaBine, 1996; Stallard & Worthington, 1998; Wexler & Schopp, 1989). However, in the present research, the event itself did not change; the accident was the same across all conditions. Only the degree of severity of the injury caused by the accident, not the presence of the accident itself, was systematically manipulated. In other words, instead of a dichotomous comparison of conditions in which hindsight is possible with conditions in which no outcome is provided, participants in the present research differentiated between degrees of severity of the outcome. As described above, research results are mixed in legal contexts requiring participants to differentiate between degrees of outcomes. The present research attempted to address the controversies surrounding hindsight bias in such cases.

Severity of injury systematically affected punitive damage awards; more severely injured plaintiffs were awarded higher punitive awards than mildly injured plaintiffs ( $\beta = .461, p < .01, \Delta R^2 = .073$ ). Additionally, participants presented with depictions of a severely injured plaintiff were more likely than participants presented with depictions of a mildly injured plaintiff to assess punitive damages against the defendant,  $\chi^2(1) = 5.31, p <$

.05,  $\phi = .132$ . In contrast with previous findings (Cather, Greene & Durham, 1996; Hastie, Schkade, & Payne, 1999a), outcome information in terms of injury severity fused to participants' punitive damage awards. Such results do not stand alone; they directly support the findings of Bornstein (in press). The results of the present study thus justify concerns regarding jurors' inability to appropriately ignore irrelevant information related to injury severity while deciding punitive damage awards.

Questions arise regarding differences between the present research and earlier work. A number of possible explanations exist for the discrepancies in results. Discrepancies with earlier research may be differences of degree. It should be noted that Cather, Greene, and Durham (1996) observed that punitive damages were higher when their trial stimuli included depictions of a severely injured plaintiff instead of a mildly injured plaintiff; however, the difference was not statistically significant. Therefore, distinctions between their study and the present research must be evaluated. First, the participants in the present research could be significantly different from mock jurors participating in their research. However, Cather, Greene, and Durham (1996) also collected data from undergraduate students at a western public university located along the front range of Colorado. Participant characteristics are unlikely to be radically different. Second, differences could be related to the mode of presentation of the trial stimulus. Although significant differences have been found related to mode of presentation (see e.g., Fishfader, Howells, Katz, & Teresi, 1996; Juhnke, Vought, Pyszczynski, Dane, Losure, & Wrightsman, 1979), Cather, Greene, and Durham (1996) also presented participants with written trial stimuli. It is thus unlikely that differences in results would be related to the mode of presentation. Third, differences in the depiction of injury severity manipulations in the present research could be more graphic, emotional, or in other ways more significant to participants than trial stimuli used in other research. Future research is required to evaluate these possibilities.

It is more difficult to evaluate comparisons of the present research to other previous findings which have not found effects of severity of injury or accident on punitive damage awards (Hastie, Schkade, & Payne, 1999a). Hastie, Schkade, and Payne (1999a) utilized paid, jury-eligible citizens from the Reno, Nevada area who watched a videotaped stimulus depicting a train derailment and then read a written transcript of the script before making damages decisions. Jurors learned that the derailment dumped toxic herbicide and caused either \$240,000 or \$24,000,000 in damage. Although mode of presentation may or may not be relevant to this specific comparison, other differences in stimuli may be important (e.g., the differences between a train accident and a personal injury or the differences between specific dollar values associated with cleanup of toxic waste and clearly described injuries without ad damnun – specific monetary requests). Further investigation is required to determine whether or not the above characteristics of the trial stimulus itself could influence juror use of irrelevant information, and, if so, what characteristics are most relevant and why. Not only would the findings of such investigations be of interest to basic researchers in the area, lawyers would embrace the opportunity to apply these findings in actual civil courtrooms. The larger question of jurors' ability to ignore outcome severity information when deciding punitive damages must be a topic for future investigation if light is to be shed on the differences among research findings.

#### Vengeance

Attitudes toward vengeance were unrelated to either compensatory or punitive damage awards ( $\beta = .09$  and  $\beta = -.04$ , respectively, both  $p > .05$ ). Although vengeance formed a critical historical motivation for the development of punitive damage awards (see Rustad & Koenig, 1993; Sales & Cole, 1984) and although jurors may confuse the goals of punitive and compensatory damages (see e.g., Bornstein, 1998; Hastie, Schkade, & Payne, 1999b), attitudes toward vengeance were not associated with any dependent measure of juror behavior. A number of possible explanations can be found for the failure to find significant results on this topic.

One possibility can be found in work by Cota-McKinley, Woody, and Bell (1998). These researchers found that gender was correlated with attitudes toward vengeance but was not a factor in predicting vengeful behavior in specific situations. It remains possible that attitudes toward vengeance could be related to attitudes toward punitive damages in general but unrelated to a decision made in a specific case. Further research exploring the relationships between attitudes toward vengeance, attitudes toward the construct of punitive damages, and juror behavior could shed light on the current failure to find significant results.

A second possible explanation may be related to aspects of the target of vengeance. Revenge is by nature a personal act (Bar-Elli & Heyd, 1988). However, the defendant depicted in the present research was a faceless corporation. There was no personal target against whom to seek vengeance. For attitudes toward vengeance to play a role in a juror's decisions, a participant may need a personal face as a target. Future investigation exploring workplace aggression against personal co-workers and faceless corporations may illuminate the findings of the present study.

The most parsimonious explanation for the failure to find significant results is that attitudes toward vengeance do not influence juror behavior. Despite the importance of vengeance in the initial development and evolution of punitive damages and despite both common beliefs and scholarly writings which argue for the importance of vengeance as a motivation for punitive damages (e.g., Hastie, Schkade, & Payne, 1999b, 1999c; Owen, 1994), vengeance does not appear to remain a critical component of jurors' decision processes regarding punitive damage awards. Although such conclusions challenge popular, historical, and scholarly notions of punitive damage awards, data from the current research provide evidence that jurors' attitudes toward vengeance are not systematically associated with jurors' decisions regarding punitive damages. Perhaps such presumed human motivations should not be completely written out of the courtroom environment, but

only further research can illuminate when, if ever, jurors' acceptance or rejection of vengeance could influence the outcomes of civil trials.

### Participants' Self Reports of Information Use

Self reports provide an additional tool for the investigation of participants' use of information to make damage award decisions. Although concerns exist among researchers that individuals may not be aware of their motivations or of the processes involved in making their decisions ( for a review, see Fiske & Taylor, 1991, pp. 226-228), data from participants' self reports of information use may provide converging evidence to support other findings in the present research.

Compensatory damages information. Although participants reported using appropriate information to assess compensatory damage awards, they also reported using legally irrelevant information to decide such awards. Participants reported that correct information was more important than legally irrelevant information ( $p < .001$ ,  $R^2 = .453$ ). Such a finding fosters some degree of faith in the modern legal system. Jurors appear to be able to differentiate between correct and incorrect uses of compensatory damage awards. Further support for correct use of information by jurors is found in the exploratory principal components analysis. The first principal component explains 31.7 percent of the variance and loads across all items, but the second factor explains 15.3 percent of the variance and is associated with self-reports of correct use of evidence to decide compensatory damages. However, if participants in the present research were completely in accord with legal theory, self-reported importance of incorrect information to decide compensatory damages would equal zero. Yet, participants reported incorrect information as important (mean = 6.02,  $SD = 2.07$ ) and, most consequentially, they rated irrelevant punitive damages evidence as having greater than zero importance ( $p < .001$ ). Fusion of punitive damages information into compensatory damage awards still appears to happen; at least jurors report that it does. However, because evidence relevant to punitive damages was not manipulated in the present study, the magnitude of the influence on actual damage

awards is unmeasurable and seems to be small in other studies of the phenomenon (see e.g., Cather, Greene, & Durham, 1996; Greene, Woody, & Winter, 1998). Overall, jurors appear sufficiently able to use and ignore information correctly to decide compensatory damage awards. However, they report that they also rate inappropriate information high in importance.

Punitive damages information. Participants reported using correct information to decide punitive damage awards. Nevertheless, participants also reported using legally inappropriate information to reach decisions regarding punitive damage awards. When rating importance of information in their decisions about punitive damages, jurors in the present research indicated that appropriate information was more important than inappropriate information ( $p < .001$ ,  $R^2 = .047$ ). Although the effect size is small, the direction of the differences is the direction mandated by legal theory. Further support of this finding is provided by the exploratory principal components analysis. The first principal component explained 48.7 percent of the variance and loaded across all variables; the second principal component explained 19.7 percent of the variance and was associated with jurors' self reports of correct use of evidence to decide punitive damages. However, if participants accurately followed legal theory, their self reports of incorrect information use to reach punitive damage decisions would approach zero. Such self reports indicate that participants rate evidence relevant to only compensatory damages more important than zero (mean = 6.30,  $SD = 2.56$ ) in deciding punitive damage awards ( $p < .001$ ). Fusion of compensatory damage information into punitive damage awards appears to happen. In the present research, such fusion is not only implicated in jurors' self reports of information use, evidence for fusion is also found in correlations of injury severity and punitive damages and in the experimental results indicating that severity of injury directly impacts punitive damage awards. Therefore, contrary to previous findings (Cather, Greene, & Durham, 1996; Hastie, Schkade, & Payne, 1999a) injury severity appears to have a significant impact on punitive damage awards, and such impacts can be demonstrated

experimentally, correlationally, and through jurors' self reports. Although they use information correctly more often than incorrectly, jurors do not appear able to sufficiently separate evidence related to compensatory and punitive damages when deciding punitive awards.

### Limitations of the Present Research

The present research utilized a written summary to present the civil trial stimulus to undergraduate students enrolled in General Psychology courses at Colorado State University. Trial evidence was presented in a bifurcated format rather than a unified format – information relevant to compensatory damages was presented separately from information relevant to punitive damages. The mock jurors did not deliberate, but instead made damages decisions individually. The limitations imposed by these methodological considerations (see Chapter 2) will be explored in the materials that follow.

Mode of presentation. The current research asked participants to read a written summary of a civil trial. A written summary allows controlled presentation of the trial stimulus without the confounds implicit in more complex modes, such as audiotape and videotape. As discussed in Chapter 1, systematic differences between modes of presentation (Fishfader, Howells, Katz, & Teresi, 1996; Juhnke, Vought, Pyszczyński, Dane, Losure & Wrightsman, 1979) as well as confounds such as voices of readers (McMahon & Fehr, 1984) or appearances of actors (Woody, 1994) can influence outcomes of simulations utilizing audiotaped or videotaped stimuli. Additionally, written presentations are often used in civil jury decision making research (see e.g., Bornstein, in press; Bornstein & Rajki, 1994; Cather, Greene & Durham, 1996; Chapman & Bornstein, 1996; Coon, Greene, & Bornstein, 1998; Feigenson, Park, & Salovey, in press; Fishfader, Howells, Katz, & Teresi, 1996; Goodman, Greene, & Loftus, 1989; Green, 1967; Greene, Goodman, & Loftus, 1991; Hans & Ermann, 1989; Hart, Evans, Wissler, Feehan, & Saks, 1997; Kaplan, & Miller, 1978; MacCoun, 1996; Saks, Hollinger, Wissler, Evans, & Hart, 1997; Thomas & Pappal, 1987; Vidmar, Lee, Cohen, & Stewart,

1994; Wells, 1992; Wissler, Evans, Hart, Morry, & Saks, 1997; Greene, Woody, & Winter, 1998). However, acknowledgment of the limitations implemented through the use of summaries is required.

Written trial summaries do not precisely replicate the conditions of the civil courtroom. Legal scholars and psychological researchers have expressed concern about the generalizability of findings unearthed through simulation research (e.g., Kerr, 1995; Kramer & Kerr, 1989; Bermant, McGuire, McKinley, & Salo, 1974). Although similar findings can be expected using more complex and realistic trial simulations (Kramer & Kerr, 1989), the current research did not strictly replicate realistic conditions of an actual civil trial; therefore, generalizations made from the current research should note such differences in realism.

Bifurcation. The trial summary in the current research was bifurcated. Evidence related to compensatory damage awards was presented, and participants decided compensatory damage awards before reading evidence for and deciding upon punitive damage awards. The purpose of bifurcation was to allow the presence of liability evidence to potentially influence participants' compensatory damage awards without the potential confound of more vivid punitive damages evidence which describes the defendant's severe misconduct. Although evidence exists to suggest that fusion of punitive damages information into compensatory damage awards does not occur (Greene, Woody, & Winter, 1998), one null result does not outweigh the importance of uncontaminated presentation of material relevant to liability and compensatory damages information. As discussed in Chapter 1, bifurcation may have resulted in higher punitive damage awards than would have occurred if a unified trial stimulus were used (see Figure 1; also Horowitz & Bordens, 1990; Landsman, Diamond, Dimitropoulos, & Saks, in press; Greene, Woody, & Winter, 1998). The potential increase in punitive damage awards was not addressed in the present research. Additionally, although bifurcation of compensatory and punitive damage awards is increasing in the United States (Landsman, Diamond, Dimitropoulos, & Saks, in press),

bifurcation is still not common in the civil courtroom. The present research traded the risk of higher punitive awards due to bifurcated conditions for the separate evaluation of the effects of presence of liability information and severity of injury on compensatory damage awards without the potential confound of punitive damages evidence.

Participants. The present research utilized students as individual jurors instead of jury-eligible community members in deliberating juries. In direct comparisons, student jurors have been found to be similar to jury-eligible community populations (Bornstein & Rajki, 1994; Casper, Benedict, & Perry, 1989; Hart, Evans, Wissler, Feehan, & Saks, 1997). However, some differences between student jurors and community jurors are expected, including mean age and education level. However, age was not a relevant predictor of any dependent variables, and General Psychology, because most students will enroll in this class at some point in the undergraduate career (Vattano, 1998), is expected to produce student populations as much like the community at large as is possible within the academic community. Nonetheless, implications of the present research should take into account the use of undergraduate student participants.

Participants in the current research did not deliberate on damage awards as jury members would in actual trials. Although variables which effect individual jurors are expected to affect deliberating juries (see Diamond & Casper, 1992; Landsman, Diamond, Dimitropoulos, & Saks, in press), the lack of jury deliberation prevented the effects of interactions between the independent variable and the dynamics of a deliberating jury from being explored in the present research.

#### Future Research

Several lines of future investigation are suggested by the present research. First, the general investigation of jurors' use of evidence regarding liability and damage award decisions requires further examination. Second, more specifically, discrepancies with previous research on the effects of outcome information on punitive damage awards (Cather, Greene & Durham, 1996; Hastie, Schkade, & Payne, 1999a) must be addressed.

Third, hindsight bias of jurors clearly has significant effects in the legal system, and such effects as well as the effectiveness of potential ameliorative actions must be evaluated.

Finally, legally relevant aspects of revenge require future investigation.

Evidence and damage awards. Jurors' use and potential misuse of evidence related to liability as well as compensatory and punitive damage awards has received significant empirical attention (e.g., Baron & Ritov, 1993; Bornstein, 1998; Broeder 1959; Casper, Benedict, & Perry, 1989; Cather, Greene & Durham, 1996; Chapman & Bornstein, 1996; Feigenson, Park, & Salovey, in press; Green, 1967; Greene, 1989; Greene, 1997; Greene, Woody, & Winter, 1998; Hans & Ermann, 1989; Hastie, Schkade, & Payne, 1999a; 1999b; Horowitz & Bordens, 1990; Kamin & Rachlinski, 1995; Landsman, Diamond, Dimitropoulos, & Saks, in press; MacCoun, 1996; Thomas & Parpal, 1987; Vidmar, Lee, Cohen, & Stewart, 1994; Wissler, Evans, Hart, Morry, & Saks, 1997). Extensive empirical and theoretical agreement exists among researchers; for example, the effects and causes of the apparent deep-pockets effect appear to be related to the corporate identity of the defendant and not simply to the wealth of the defendant (Hans & Ermann, 1989; MacCoun, 1996; Vidmar, Lee, Cohen, & Stewart, 1994). However, many issues are still disputed.

Specifically, the presence of liability information did not affect damage awards in the present work. However, researchers (e.g., Baron & Ritov, 1993; Broeder, 1959; Chapman & Bornstein, 1996; Feigenson, Park, & Salovey, in press; Greene, 1997) have demonstrated that the quality of liability evidence against the defendant can influence decisions regarding compensatory damages. The dichotomous presence or absence of liability information had no effect on compensatory awards, but quality of liability information affects compensatory damage awards when jurors must decide both liability and compensatory damages. This distinction requires further investigation to illuminate the psychological differences between jurors' perceptions, tasks, and perceived goals across the two decision processes.

Additionally, the effects of injury severity on punitive damage awards are not fully understood. Although some researchers have not found effects of injury severity on punitive damage awards (Cather, Greene & Durham, 1996; Hastie, Schkade, & Payne, 1999a), some evidence for systematic effects has been found (Bornstein, 1998), and the present research lends support to the contention that injury severity affects punitive damage awards. Further investigation of differences in methodology, statistical evaluation, participant characteristics, and/or aspects of the stimuli presented to participants is needed before findings can converge on a description of the effects of injury severity on punitive damage awards which will be acceptable to both the psychological research community and the community of legal scholars.

Hindsight bias. Additional investigation is also warranted to fully understand the effects of outcome information on perceptions of the actions which led to the outcome. Hindsight bias appears inevitable in civil legal settings. A jury trial is predicated on the premise that an injury or accident has occurred and that the events and precautions, or lack thereof, which are associated with the accident require evaluation to determine whether or not they were appropriate. Hindsight bias appears relevant in the current research, and current results support previous findings of the effects of hindsight bias in civil legal settings (e.g., Casper, Benedict, & Perry, 1989; Kamin & Rachlinski, 1995; Wexler & Schopp, 1989). Effects of jurors' hindsight bias appear to be robust; therefore, potential methods for reducing hindsight bias such as judicial instructions (see Kamin & Rachlinski, 1995) or requests in the closing arguments of the defense attorney (Stallard & Worthington, 1998) must continue to be evaluated. The possibility of hindsight bias is unlikely to disappear from the civil courtroom, and means of reducing it or eliminating it are desperately needed in the legal system.

Vengeance. Vengeance has received very little empirical attention. Acceptance of motives toward revenge, although unimportant in jurors' decisions in the current study, may still be relevant in the legal system. First, as suggested above, due to the extremely

personal nature of revenge (Bar-Elli & Heyd, 1988) jurors' attitudes toward vengeance may require a person target to be relevant. An investigation of vengeance in the workplace may be an appropriate starting point for comparisons of vengeance against a co-worker and vengeance against a corporation when both targets have committed the same offense. More generally, empirical exploration is required to determine which aspects of civil legal proceedings (e.g., jurors' knowledge of the conduct of the defendant before deciding compensatory damage awards) may exacerbate revenge as a motivation for juror behavior. Perhaps most importantly for the legal system as a whole is the development of an understanding of the conditions, if any, under which a juror's endorsement of vengeance may be significant. Looking beyond jurors, revenge may motivate the decision to seek civil legal action, particularly through the plaintiff who seeking compensation for injuries and punishment as well as possibly retribution for the actions of the defendant. Quantitative as well as qualitative research may be relevant to such an investigation. Not only should the precursors for legal applications of vengeance be explored, but also the factors which will influence the likelihood of attitudes toward vengeance becoming relevant as well as the factors which will decrease this likelihood or remove it completely from the legal system.

### Conclusions

The present research suggests four primary conclusions: (1) jurors can disregard irrelevant liability evidence when deciding compensatory damage awards, (2) jurors appropriately use evidence of plaintiff injury to decide compensatory damages, (3) punitive damages are not related to jurors' attitudes toward vengeance, and (4) punitive awards are inappropriately affected by evidence of plaintiff injury. Each is explored below and then potential effects both inside and outside the courtroom are addressed.

First, the present research implies that, in accordance with legal theory, jurors can disregard irrelevant liability information when deciding compensatory damage awards. Contrary to the assumptions of the appeals judge in *Fuentes v. Tucker* (1947), jurors

appear able to disregard irrelevant liability information when deciding compensatory damage awards. The judge refused Tucker's appeal on the grounds that to remove the liability information would be prejudicial against the defendant, but a second trial appears unlikely to significantly change the jury's compensatory damage award. Issues still remain in question, however. For example, as stated above, although it appears that jurors can appropriately ignore the mere presence of liability information, it still appears that the quality of such information remains relevant to decisions of compensatory damage awards when jurors must decide both liability and compensatory damages (Baron & Ritov, 1993; Broeder, 1959; Chapman & Bornstein, 1996; Feigenson, Park, & Salovey, in press; Greene, 1997). However, when liability has been either stipulated or decided previously, liability information, as presented in *Fuentes v. Tucker*, appears to be ignored by jurors as mandated by law.

It appears that jurors correctly follow legal theory in another way. Jurors seem to appropriately use the severity of the plaintiff's injury to decide compensatory damage awards. Jurors appear able to utilize compensatory damage awards to restore the plaintiff to a previous level of functioning, and they seem to realize that a severely injured plaintiff requires more compensation for both economic and non-economic damages than a mildly injured plaintiff. Again, jurors are acting as the law dictates.

Vengeance does not seem to motivate jurors in the appropriation of punitive damage awards. Although attitudes toward vengeance may eventually be found to be relevant to juror behavior (see above), the current research suggests that jurors' attitudes toward revenge are irrelevant to damage awards. Punitive damage awards may be, from at least the perspective of jurors, detached from the vindictive motives that led to the creation of such awards. Jurors appear to be utilizing the modern functions and goals of punitive damage awards instead of the historical and personal functions of such awards.

Punitive damage awards appear more complex and difficult for jurors. Jurors appear to inappropriately factor outcome information, in the presence of information about

the severity of the plaintiff's injury, into decisions regarding punitive damage awards. Jurors, in contrast with legal theory, seem to show hindsight bias when regarding conduct of the defendant. The defendant's conduct was perceived as more inappropriate when the plaintiff's injury was more severe. Quite simply, jurors may perceive the likelihood of a severe outcome as greater when they are told that a severe outcome actually occurred. Outcome information cannot be kept out of the courtroom; therefore, effects of hindsight bias, although statistically small, may play a role in all decisions regarding punitive damage awards.

The above conclusions have significant implications both inside and outside the courtroom. The above conclusions generate obvious suggestions for legal advocates inside the civil courtroom. First, if liability is stipulated or decided previously, it appears that neither the plaintiff nor the defense need be concerned with the fairness of whether or not jury members hear the details surrounding the accident. Liability information, in such cases, appears irrelevant. Second, it is to the advantage of the plaintiff to maximize the severity of the plaintiff's perceived injuries so that compensatory damage awards may be inflated. Likewise, it is to the advantage of the defense to minimize the severity of the plaintiff's perceived injuries. Third, vengeance, as a personality variable of jurors, may be disregarded during jury selection, *voir dire*, and development of arguments for the plaintiff and the defense. Fourth, if the plaintiff is seeking punitive damages, depicting a severe outcome of the defendant's conduct may increase punitive damage awards. The defense should present the outcome of the defendant's conduct to be mild or even inconsequential. However, the practical implications of the present research inside the courtroom pale in contrast to the implications outside of the courtroom.

As described in Chapter 1, only 10% of personal injury cases actually go to trial (Wissler, Evans, Hart, Morry, & Saks, 1997). However, the basis for the advocates' decisions about whether or not to take a case to trial is driven by past jury decisions as well as the practical concerns that surround implications of potential jury decisions (Greene,

1989; Kalven, 1958; Wissler, Evans, Hart, Morry, & Saks, 1997). As legal advocates evaluate evidence for and against the plaintiff and the defendant, results of the present work should play a role in decisions of whether to seek a jury trial. Of course, the goals of particular lawyers will reflect the needs and motivations of their clients. The severity of the injuries to the plaintiff, particularly the salience of injury characteristics which appear important to jurors' perceptions of overall injury severity (see above), should be expected to have significant effects both appropriately on compensatory damages and inappropriately on punitive damages. Aspects of a plaintiff's injuries should influence the expectations of legal advocates, and such expectations should in turn drive decisions about seeking a jury trial or a settlement out of court. The decisions of the legal advocates involved should reflect both legal theory and psychological research. Punitive damage awards have tremendous potential to significantly and detrimentally affect the finances of corporations against which they are assessed, and potential legal confounds which may influence amounts of punitive damage awards should not be ignored.

The present research lends support to the notion that jurors can, in some ways, function as the law requires. The present research also suggests that jurors are likely to misuse evidence presented in civil trials. Only through further research will the communities of psychologists and legal scholars who pursue such avenues of investigation gain sufficient understanding to comprehensively direct practical decisions both inside and outside the courtroom. The present research aids in the illumination of jurors' use of evidence and contributes to the goal of a more fair, expedient, and hopeful civil legal environment in the United States.

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Appendix A  
Demographic Survey

1. Age: \_\_\_\_\_
2. Gender: (**please circle one**):     F     M
3. Student Class: (**please circle one**):  
 Freshmen                      Sophomore                      Junior                      Senior  
 Other \_\_\_\_\_
4. Hometown (city and state where you grew up): \_\_\_\_\_
5. Ethnically, you consider yourself to be (check as many as apply):  
 \_\_\_ American Indian/Alaskan Native     (specify) \_\_\_\_\_  
 \_\_\_ Asian/Pacific Islander                 (specify) \_\_\_\_\_  
 \_\_\_ Black/African American               (specify) \_\_\_\_\_  
 \_\_\_ Hispanic/Cuban/Chicano/Lantio     (specify) \_\_\_\_\_  
 \_\_\_ White/European American             (specify) \_\_\_\_\_  
 \_\_\_ Other                                     (specify) \_\_\_\_\_
6. Have you ever served on a jury? \_\_\_\_\_
7. If you have served on a jury, please briefly describe the case?  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
8. Have you ever been involved in a civil lawsuit? \_\_\_\_\_
9. If you have been involved in a civil lawsuit, please describe the lawsuit.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## Appendix B

### Mild Injury Description

In the mild injury conditions, the treating physician and the economist will testify to the following injuries and the economic effects of those injuries as described below.

#### Witnesses

##### **1. Richard Cile, M.D. (Treating Physician)**

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

I am the neurologist who treated the plaintiff, Carl Jeansonne, while Jeansonne was at Denver General Hospital. Since Jeansonne's discharge from DGH, I have seen him approximately once every three months. I am very familiar with the medical treatment Jeansonne has received and am able to summarize it for purposes of the trial. My testimony is consistent with information in Mr. Jeansonne's medical records.

Carl Jeansonne was transported to Denver General Hospital by ambulance shortly after the accident on August 11, 1995.

Examination of his head, eyes, ears, and neck showed multiple small abrasions and lacerations. He also sustained a concussion--a brief loss of consciousness--as well as a hyper flexion injury to the cervical spine and a soft tissue injury to the neck. These conditions resulted in the spasm of paracervical and parathoracic muscles.

He was released from the hospital one week later. He was fully mobile but complained of recurrent back and neck pain. Recommendations were for continued physical and massage therapy on an outpatient basis.

The final diagnoses were mild brain trauma resulting from a severe concussion, and soft tissue injuries. No significant cognitive impairment was noted at discharge. He missed three months of work recovering from this injury.

Since discharge, he has continued to receive massage therapy and chiropractic care. It is anticipated that he will have to endure chronic pain for the rest of his life.

##### **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Patricia Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the lifetime earning capacity of Carl Jeansonne based on his pre-accident condition and the present value of this loss of that earning capacity. I will also disclose the loss sustained by Mr. Jeansonne during his convalescence as well as past and future medical care.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he was unable to work for the three months following his injury. The medical expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by the medical expenses that will accumulate until his condition is alleviated. Future losses are based on the assumption that Mr. Jeansonne, now 63, will experience chronic pain for the rest of his life. His life expectancy is 75 years.

## Appendix C

### Severe Injury Description

In the severe injury conditions, the treating physician and the economist will testify to the following injuries and the economic effects of those injuries as described below.

#### Witnesses

##### 1. Richard Cile, M.D. (Treating Physician)

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

I am the neurologist who treated the plaintiff, Carl Jeansonne, while Jeansonne was at Denver General Hospital. Since Jeansonne's discharge from DGH, I have seen him approximately once every three months. I am very familiar with the medical treatment Jeansonne has received and am able to summarize it for purposes of the trial. My testimony is consistent with information in Mr. Jeansonne's medical records.

Carl Jeansonne was airlifted to Denver General Hospital shortly after the accident on August 11, 1995. He presented to the emergency room with rigid lower extremities and no spontaneous movement. Examination of his head, eyes, ear, and neck showed multiple abrasions, lacerations, and edema. His right pupil was dilated, and he had an unreactive left pupil. His left upper extremity had a closed humerus fracture. A chest X-ray showed multiple left-sided rib fractures and a left clavicle fracture. A CT scan of his head showed multiple fractures of the skull and contusions in the brain.

On hospital day four, Jeansonne underwent surgery to repair the fractures, stabilize internal organs, and insert a feeding tube into the stomach. On hospital day twelve, he started to have fevers with an elevated heart rate. A bronchoscopy was performed and the results failed to demonstrate any source of infection. He remained in a coma.

After three weeks in intensive care, Jeansonne was discharged to the Veteran's Administration Medical Center in Denver. He remained unresponsive, but he had a few episodes of spontaneous eye opening and reports of tracking to voice. He took all feeding and liquids through a gastric tube. He had physical, occupational, and massage therapy every day during his six week stay. Upon discharge, he remained bedridden, nonverbal, and mute.

In November, 1995, Jeansonne was admitted to Craig Hospital. He was able to withdraw both upper extremities to pain. He underwent surgery for release of heel cord contractures and the amputation of his toes. He also received injections for generalized rigidity and spasticity in his neck.

After approximately seven weeks in a neuro-care program, Jeansonne was transferred to a full rehabilitation program. He was able to recover some swallowing function and showed evidence of a mood disorder with symptoms of depression. He generally tolerated tube feedings. His responsiveness improved, and he was able to follow one-step commands; however, he remained mute. Jeansonne was discharged to an assisted care facility in February, 1995.

The final diagnoses were

- 1) Traumatic brain injury with severe brain stem and frontal lobe injuries, nerve palsy, depressed level of responsiveness, paraplegia, and severe impairment in the ability to use language.
- 2) Lack of bowel and bladder control.
- 3) Fracture of left shoulder with decreased range of motion.
- 4) Multiple muscle contractures.

Since discharge, Jeansonne has continued to receive physical, occupational, and speech therapy. He remains in a very low functioning state. It is anticipated he will remain totally dependent throughout the remainder of his life.

## **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Patricia Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the loss experienced by Carl Jeansonne based on his pre-accident condition.

It is very important to recognize the monetary losses to Carl Jeansonne. One can calculate that loss by analyzing various employment records, compensation plans, medical records, and Mr. Jeansonne's Life Care Plan. General economic data including data on interest rates, inflation, wage growth indices, labor force data and geographic differentials, age-earnings profiles, retirement and pension information, and documents regarding time contributions for Mr. Jeansonne's household activities are also important to this case.

The Life Care Plan describes the following services and equipment that Carl Jeansonne will require in the future: assistance at home or in a care facility, medical care, wheelchair needs and accessories, orthopedic equipment, supplies, medications, transportation, and aids for independent function.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he has been unable to work or generate any wages or benefit earnings. The medical and life care expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by his inability to work and the accumulating medical and life care expenses his current physical condition will require. Future losses are based on the estimation that Mr. Jeansonne, now

63, will live to be approximately 75 years old. Mr. Jeansonne's current medical condition will require that he be in a convalescent care facility until the time of his death.

## Appendix D

### Liability Information

At the time of the accident the defendant Charles Landau, employed by Stevenson Trucking, was operating a 1985 semi tractor truck that was attached to a large trailer loaded with approximately 22 tons of asphalt. Mr. Landau was delivering asphalt to a job site at I-70 and Wadsworth. At the time of the accident, he was traveling westbound on I-70.

Entering a highway construction site, Mr. Landau lost control of his tractor-trailer, crossed two lanes of traffic, and crashed into the median. The front axle from his truck became airborne and struck the front windshield of a truck being driven eastbound on I-70 by the plaintiff, Carl Jeansonne. Mr. Jeansonne was injured.

The speed limit on that section of highway was 65 miles per hour. There are four lanes in each direction. The weather was clear and the roadway was dry.

### Closing arguments for the Plaintiff

The accident occurred in the proximity of a construction zone. The construction zone required the four westbound lanes to merge into two lanes and those two lanes were diverted to the left of the construction area. The posted speed limit in the construction zone was 50 mph.

Mr. Landau stated he was traveling west on I-70 in the third lane from the median (lane #3) at an undisclosed rate of speed. As traffic began to slow ahead of him he said he changed lanes in an effort to maintain his speed. Mr. Landau then realized he was entering a 50-mph highway construction zone and that the two right-most lanes (lanes #3 and #4) were under construction. All westbound lanes were therefore being redirected leftward into the two lanes closest to the median (lanes #1 and #2) to get around the construction zone. Traffic in Landau's lane was directed by cones to move two lanes to the left. He said as he entered the construction zone the surface of the roadway became uneven and bumpy which caused him to lose control of his vehicle.

The semi left 280 feet of skid marks which terminated as a result of the impact with the median. When it hit the median the tractor-trailer flipped on its side and continued to move forward. The rear most wheels of the trailer came to rest approximately 110 feet from where the skid marks end.

The semi's fuel tanks ruptured as a result of hitting the median. Impact with the median caused diesel fuel, concrete debris, and the entire front axle of the semi to be thrown into eastbound lanes of traffic. The fuel that spilled onto the highway ignited and the tractor was totally destroyed by the fire.

The front axle assembly (including the two front tires and wheels) struck the left front windshield and cab of Mr. Jeansonne's flatbed truck. The impact of the airborne

axle crushed the driver's side of the cabin of Mr. Jeanson's truck and caused serious injury to the plaintiff.

A professional accident reconstructionist noted that the rear tractor tires came to rest approximately 110 feet west of the last visible skid marks. Skid marks of this nature usually indicate that the driver slammed on the brakes and then continued to apply them, as opposed to pumping, or feathering the brakes. After analyzing the information and using computer simulations to reconstruct the accident scene, the reconstructionist estimated that the semi was traveling at approximately 73 mph at a point about 1/2 mile east of the construction zone and entered the construction zone at approximately 61 or 62 mph. The tractor-trailer was traveling too fast for the conditions and as a result, the driver lost control of his vehicle shortly after he entered the construction zone. The expert stated that if Landau had followed proper braking techniques, there is a good possibility that he would not have lost control of his vehicle. Landau should have pumped his brakes rather than slamming them on, and he also should have used the engine retarder, which is called the "jake brake." Landau failed on both counts and that, according to the reconstructionist, is what caused the accident.

### **Closing arguments for the defense**

At approximately 10:30 AM on August 11, 1992 Mr. Landau was traveling westbound on I-70 delivering asphalt to a job site. He stated that the traffic ahead of him appeared to be slowing for no apparent reason. He was traveling in the third lane from the median (lane #3) when he moved leftward into lane 2 in order to stay with the flow of traffic.

As Mr. Landau approached the construction area, he noticed traffic was being directed to move two lanes to the left. The surface of the roadway became uneven and was bumpy and torn up from some of the repaving they were doing. As he crossed the lanes, he remembered hitting a higher level of pavement, and that made the steering wheel jerk out of his hands. Another eyewitness also saw the truck jolt as the pavement changed. At this point Mr. Landau applied the brakes hard, downshifted, and started honking his horn. When the brakes failed to catch, he lost control of the vehicle and started to skid. The back end started to swing out to the right and the wheels started losing traction. He recalled sliding went pretty far before hitting the barrier and flipping over.

After hitting the median and the tractor flipping over, Mr. Landau remembered the truck continuing to slide on its side. Once it stopped sliding he could smell gas from the fuel tanks and got out of the cab as fast as possible.

According to a second accident reconstructionist, the tractor-trailer operated by Landau was traveling anywhere between 55 and 60 mph at the onset of braking at the entrance to the construction zone. This was 5 to 10 mph over the posted speed limit for that section of the highway. The reconstructionist stated that the forward momentum generated by the weight and speed of the tractor-trailer rig caused the tractor-trailer to collide with the median barrier and spill the asphalt load. The emergency measures taken by Mr. Landau were appropriate given his speed and the conditions of the road. Besides braking, Mr. Landau also downshifted and vigorously applied his horn. Mr. Landau's quick action allowed him to avoid hitting other vehicles on the road.

## Appendix E

### Liability Information/Mild Injury

Carl Jeansonne and Pearl Jeansonne, Plaintiffs

v.

Stevenson Trucking, Defendant

This is a personal injury case arising out of a motor vehicle accident which occurred on August 11, 1995 on westbound Interstate 70, approximately 1/2 mile west of the Highway I-70 and Highway I-225 interchange in Denver. The claim is brought by Plaintiffs Carl Jeansonne and his wife, Pearl Jeansonne. They claim that Stevenson Trucking was negligent in the operation of a motor vehicle and as a result of the negligence Carl Jeansonne was injured. The truck was operated by Charles Landau, an employee of defendant Stevenson Trucking. Stevenson Trucking admits that the operator was its employee acting within the course of his employment, thus making Stevenson Trucking liable for any negligence of its employee.

In a prior judicial hearing, the defendant Stevenson Trucking was determined to be liable (at fault) for negligence in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner. Therefore, you will not have to determine which party was a fault.

At the time of the accident the defendant Charles Landau, employed by Stevenson Trucking, was operating a 1985 semi tractor truck that was attached to a large trailer loaded with approximately 22 tons of asphalt. Mr. Landau was delivering asphalt to a job site at I-70 and Wadsworth. At the time of the accident, he was traveling westbound on I-70.

Entering a highway construction site, Mr. Landau lost control of his tractor-trailer, crossed two lanes of traffic, and crashed into the median. The front axle from his truck became airborne and struck the front windshield of a truck being driven eastbound on I-70 by the plaintiff, Carl Jeansonne. Mr. Jeansonne was injured.

The speed limit on that section of highway was 65 miles per hour. There are four lanes in each direction. The weather was clear and the roadway was dry.

### **Closing arguments for the Plaintiff**

The accident occurred in the proximity of a construction zone. The construction zone required the four westbound lanes to merge into two lanes and those two lanes were diverted to the left of the construction area. The posted speed limit in the construction zone was 50 mph.

Mr. Landau stated he was traveling west on I-70 in the third lane from the median (lane #3) at an undisclosed rate of speed. As traffic began to slow ahead of him he said he changed lanes in an effort to maintain his speed. Mr. Landau then realized he was entering a 50-mph highway construction zone and that the two right-most lanes (lanes #3

and #4) were under construction. All westbound lanes were therefore being redirected leftward into the two lanes closest to the median (lanes #1 and #2) to get around the construction zone. Traffic in Landau's lane was directed by cones to move two lanes to the left. He said as he entered the construction zone the surface of the roadway became uneven and bumpy which caused him to lose control of his vehicle.

The semi left 280 feet of skid marks which terminated as a result of the impact with the median. When it hit the median the tractor-trailer flipped on its side and continued to move forward. The rear most wheels of the trailer came to rest approximately 110 feet from where the skid marks end.

The semi's fuel tanks ruptured as a result of hitting the median. Impact with the median caused diesel fuel, concrete debris, and the entire front axle of the semi to be thrown into eastbound lanes of traffic. The fuel that spilled onto the highway ignited and the tractor was totally destroyed by the fire.

The front axle assembly (including the two front tires and wheels) struck the left front windshield and cab of Mr. Jeanson's flatbed truck. The impact of the airborne axle crushed the driver's side of the cabin of Mr. Jeanson's truck and caused serious injury to the plaintiff.

A professional accident reconstructionist noted that the rear tractor tires came to rest approximately 110 feet west of the last visible skid marks. Skid marks of this nature usually indicate that the driver slammed on the brakes and then continued to apply them, as opposed to pumping, or feathering the brakes. After analyzing the information and using computer simulations to reconstruct the accident scene, the reconstructionist estimated that the semi was traveling at approximately 73 mph at a point about 1/2 mile east of the construction zone and entered the construction zone at approximately 61 or 62 mph. The tractor-trailer was traveling too fast for the conditions and as a result, the driver lost control of his vehicle shortly after he entered the construction zone. The expert stated that if Landau had followed proper braking techniques, there is a good possibility that he would not have lost control of his vehicle. Landau should have pumped his brakes rather than slamming them on, and he also should have used the engine retarder, which is called the "jake brake." Landau failed on both counts and that, according to the reconstructionist, is what caused the accident.

### **Closing arguments for the defense**

At approximately 10:30 AM on August 11, 1992 Mr. Landau was traveling westbound on I-70 delivering asphalt to a job site. He stated that the traffic ahead of him appeared to be slowing for no apparent reason. He was traveling in the third lane from the median (lane #3) when he moved leftward into lane 2 in order to stay with the flow of traffic.

As Mr. Landau approached the construction area, he noticed traffic was being directed to move two lanes to the left. The surface of the roadway became uneven and was bumpy and torn up from some of the repaving they were doing. As he crossed the lanes, he remembered hitting a higher level of pavement, and that made the steering wheel jerk out of his hands. Another eyewitness also saw the truck jolt as the pavement changed. At this point Mr. Landau applied the brakes hard, downshifted, and started honking his horn. When the brakes failed to catch, he lost control of the vehicle and started to skid. The back end started to swing out to the right and the wheels started losing traction. He recalled sliding went pretty far before hitting the barrier and flipping over.

After hitting the median and the tractor flipping over, Mr. Landau remembered the truck continuing to slide on its side. Once it stopped sliding he could smell gas from the fuel tanks and got out of the cab as fast as possible.

According to a second accident reconstructionist, the tractor-trailer operated by Landau was traveling anywhere between 55 and 60 mph at the onset of braking at the entrance to the construction zone. This was 5 to 10 mph over the posted speed limit for that section of the highway. The reconstructionist stated that the forward momentum generated by the weight and speed of the tractor-trailer rig caused the tractor-trailer to collide with the median barrier and spill the asphalt load. The emergency measures taken by Mr. Landau were appropriate given his speed and the conditions of the road. Besides braking, Mr. Landau also downshifted and vigorously applied his horn. Mr. Landau's quick action allowed him to avoid hitting other vehicles on the road.

### **Witnesses relevant to Carl Jeansonne's Injuries**

#### **1. Richard Cile, M.D. (Treating Physician)**

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

I am the neurologist who treated the plaintiff, Carl Jeansonne, while Jeansonne was at Denver General Hospital. Since Jeansonne's discharge from DGH, I have seen him approximately once every three months. I am very familiar with the medical treatment Jeansonne has received and am able to summarize it for purposes of the trial. My testimony is consistent with information in Mr. Jeansonne's medical records.

Carl Jeansonne was transported to Denver General Hospital by ambulance shortly after the accident on August 11, 1992.

Examination of his head, eyes, ears, and neck showed multiple small abrasions and lacerations. He also sustained a concussion--a brief loss of consciousness--as well as a hyper flexion injury to the cervical spine and a soft tissue injury to the neck. These conditions resulted in the spasm of paracervical and parathoracic muscles.

He was released from the hospital one week later. He was fully mobile but complained of recurrent back and neck pain. Recommendations were for continued physical and massage therapy on an outpatient basis.

The final diagnoses were mild brain trauma resulting from a severe concussion, and soft tissue injuries. No significant cognitive impairment was noted at discharge. He missed three months of work recovering from this injury.

Since discharge, he has continued to receive massage therapy and chiropractic care. It is anticipated that he will have to endure chronic pain for the rest of his life.

#### **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Dr. Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the lifetime earning capacity of Carl Jeansonne based on his pre-accident condition and the present value of this loss of that earning capacity. I will also disclose the loss sustained by Mr. Jeansonne during his convalescence as well as past and future medical care.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he was unable to work for the three months following his injury. The medical expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by the medical expenses that will accumulate until his condition is alleviated. Future losses are based on the assumption that Mr. Jeansonne, now 63, will experience chronic pain for the rest of his life. His life expectancy is 75 years.

## Appendix F

## No Liability Information/Mild Injury

Carl Jeansonne and Pearl Jeansonne, Plaintiffs  
v.  
Stevenson Trucking, Defendant

This is a personal injury case arising out of a motor vehicle accident which occurred on August 11, 1995 on westbound Interstate 70, approximately 1/2 mile west of the Highway I-70 and Highway I-225 interchange in Denver. The claim is brought by Plaintiffs Carl Jeansonne and his wife, Pearl Jeansonne. They claim that Stevenson Trucking was negligent in the operation of a motor vehicle and as a result of the negligence Carl Jeansonne was injured. The truck was operated by Charles Landau, an employee of defendant Stevenson Trucking. Stevenson Trucking admits that the operator was its employee acting within the course of his employment, thus making Stevenson Trucking liable for any negligence of its employee.

In a prior judicial hearing, the defendant Stevenson Trucking was determined to be liable (at fault) for negligence in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner. Therefore, you will not have to determine which party was a fault.

**Witnesses****1. Richard Cile, M.D. (Treating Physician)**

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

I am the neurologist who treated the plaintiff, Carl Jeansonne, while Jeansonne was at Denver General Hospital. Since Jeansonne's discharge from DGH, I have seen him approximately once every three months. I am very familiar with the medical treatment Jeansonne has received and am able to summarize it for purposes of the trial. My testimony is consistent with information in Mr. Jeansonne's medical records.

Carl Jeansonne was transported to Denver General Hospital by ambulance shortly after the accident on August 11, 1992.

Examination of his head, eyes, ears, and neck showed multiple small abrasions and lacerations. He also sustained a concussion--a brief loss of consciousness--as well as a hyper flexion injury to the cervical spine and a soft tissue injury to the neck. These conditions resulted in the spasm of paracervical and parathoracic muscles.

He was released from the hospital one week later. He was fully mobile but complained of recurrent back and neck pain. Recommendations were for continued physical and massage therapy on an outpatient basis.

The final diagnoses were mild brain trauma resulting from a severe concussion, and soft tissue injuries. No significant cognitive impairment was noted at discharge. He missed three months of work recovering from this injury.

Since discharge, he has continued to receive massage therapy and chiropractic care. It is anticipated that he will have to endure chronic pain for the rest of his life.

## **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Dr. Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the lifetime earning capacity of Carl Jeansonne based on his pre-accident condition and the present value of this loss of that earning capacity. I will also disclose the loss sustained by Mr. Jeansonne during his convalescence as well as past and future medical care.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he was unable to work for the three months following his injury. The medical expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by the medical expenses that will accumulate until his condition is alleviated. Future losses are based on the assumption that Mr. Jeansonne, now 63, will experience chronic pain for the rest of his life. His life expectancy is 75 years.

## Appendix G

### Liability Information/Severe Injury

Carl Jeansonne and Pearl Jeansonne, Plaintiffs

v.

Stevenson Trucking, Defendant

This is a personal injury case arising out of a motor vehicle accident which occurred on August 11, 1995 on westbound Interstate 70, approximately 1/2 mile west of the Highway I-70 and Highway I-225 interchange in Denver. The claim is brought by Plaintiffs Carl Jeansonne and his wife, Pearl Jeansonne. They claim that Stevenson Trucking was negligent in the operation of a motor vehicle and as a result of the negligence Carl Jeansonne was injured. The truck was operated by Charles Landau, an employee of defendant Stevenson Trucking. Stevenson Trucking admits that the operator was its employee acting within the course of his employment, thus making Stevenson Trucking liable for any negligence of its employee.

In a prior judicial hearing, the defendant Stevenson Trucking was determined to be liable (at fault) for negligence in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner. Therefore, you will not have to determine which party was a fault.

At the time of the accident the defendant Charles Landau, employed by Stevenson Trucking, was operating a 1985 semi tractor truck that was attached to a large trailer loaded with approximately 22 tons of asphalt. Mr. Landau was delivering asphalt to a job site at I-70 and Wadsworth. At the time of the accident, he was traveling westbound on I-70.

Entering a highway construction site, Mr. Landau lost control of his tractor-trailer, crossed two lanes of traffic, and crashed into the median. The front axle from his truck became airborne and struck the front windshield of a truck being driven eastbound on I-70 by the plaintiff, Carl Jeansonne. Mr. Jeansonne was injured.

The speed limit on that section of highway was 65 miles per hour. There are four lanes in each direction. The weather was clear and the roadway was dry.

### **Closing arguments for the Plaintiff**

The accident occurred in the proximity of a construction zone. The construction zone required the four westbound lanes to merge into two lanes and those two lanes were diverted to the left of the construction are. The posted speed limit in the construction zone was 50 mph.

Mr. Landau stated he was traveling west on I-70 in the third lane from the median (lane #3) at an undisclosed rate of speed. As traffic began to slow ahead of him he said he changed lanes in an effort to maintain his speed. Mr. Landau then realized he was entering a 50-mph highway construction zone and that the two right-most lanes (lanes #3

and #4) were under construction. All westbound lanes were therefore being redirected leftward into the two lanes closest to the median (lanes #1 and #2) to get around the construction zone. Traffic in Landau's lane was directed by cones to move two lanes to the left. He said as he entered the construction zone the surface of the roadway became uneven and bumpy which caused him to lose control of his vehicle.

The semi left 280 feet of skid marks which terminated as a result of the impact with the median. When it hit the median the tractor-trailer flipped on its side and continued to move forward. The rear most wheels of the trailer came to rest approximately 110 feet from where the skid marks end.

The semi's fuel tanks ruptured as a result of hitting the median. Impact with the median caused diesel fuel, concrete debris, and the entire front axle of the semi to be thrown into eastbound lanes of traffic. The fuel that spilled onto the highway ignited and the tractor was totally destroyed by the fire.

The front axle assembly (including the two front tires and wheels) struck the left front windshield and cab of Mr. Jeanson's flatbed truck. The impact of the airborne axle crushed the driver's side of the cabin of Mr. Jeanson's truck and caused serious injury to the plaintiff.

A professional accident reconstructionist noted that the rear tractor tires came to rest approximately 110 feet west of the last visible skid marks. Skid marks of this nature usually indicate that the driver slammed on the brakes and then continued to apply them, as opposed to pumping, or feathering the brakes. After analyzing the information and using computer simulations to reconstruct the accident scene, the reconstructionist estimated that the semi was traveling at approximately 73 mph at a point about 1/2 mile east of the construction zone and entered the construction zone at approximately 61 or 62 mph. The tractor-trailer was traveling too fast for the conditions and as a result, the driver lost control of his vehicle shortly after he entered the construction zone. The expert stated that if Landau had followed proper braking techniques, there is a good possibility that he would not have lost control of his vehicle. Landau should have pumped his brakes rather than slamming them on, and he also should have used the engine retarder, which is called the "jake brake." Landau failed on both counts and that, according to the reconstructionist, is what caused the accident.

### **Closing arguments for the defense**

At approximately 10:30 AM on August 11, 1992 Mr. Landau was traveling westbound on I-70 delivering asphalt to a job site. He stated that the traffic ahead of him appeared to be slowing for no apparent reason. He was traveling in the third lane from the median (lane #3) when he moved leftward into lane 2 in order to stay with the flow of traffic.

As Mr. Landau approached the construction area, he noticed traffic was being directed to move two lanes to the left. The surface of the roadway became uneven and was bumpy and torn up from some of the repaving they were doing. As he crossed the lanes, he remembered hitting a higher level of pavement, and that made the steering wheel jerk out of his hands. Another eyewitness also saw the truck jolt as the pavement changed. At this point Mr. Landau applied the brakes hard, downshifted, and started honking his horn. When the brakes failed to catch, he lost control of the vehicle and started to skid. The back end started to swing out to the right and the wheels started losing traction. He recalled sliding went pretty far before hitting the barrier and flipping over.

After hitting the median and the tractor flipping over, Mr. Landau remembered the truck continuing to slide on its side. Once it stopped sliding he could smell gas from the fuel tanks and got out of the cab as fast as possible.

According to a second accident reconstructionist, the tractor-trailer operated by Landau was traveling anywhere between 55 and 60 mph at the onset of braking at the entrance to the construction zone. This was 5 to 10 mph over the posted speed limit for that section of the highway. The reconstructionist stated that the forward momentum generated by the weight and speed of the tractor-trailer rig caused the tractor-trailer to collide with the median barrier and spill the asphalt load. The emergency measures taken by Mr. Landau were appropriate given his speed and the conditions of the road. Besides braking, Mr. Landau also downshifted and vigorously applied his horn. Mr. Landau's quick action allowed him to avoid hitting other vehicles on the road.

### **Witnesses relevant to Carl Jeansonne's Injuries**

#### **1. Richard Cile, M.D. (Treating Physician)**

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

I am the neurologist who treated the plaintiff, Carl Jeansonne, while Jeansonne was at Denver General Hospital. Since Jeansonne's discharge from DGH, I have seen him approximately once every three months. I am very familiar with the medical treatment Jeansonne has received and am able to summarize it for purposes of the trial. My testimony is consistent with information in Mr. Jeansonne's medical records.

Carl Jeansonne was airlifted to Denver General Hospital shortly after the accident on August 11, 1995. He presented to the emergency room with rigid lower extremities and no spontaneous movement. Examination of his head, eyes, ear, and neck showed multiple abrasions, lacerations, and edema. His right pupil was dilated, and he had an unreactive left pupil. His left upper extremity had a closed humerus fracture. A chest X-ray showed multiple left-sided rib fractures and a left clavicle fracture. A CT scan of his head showed multiple fractures of the skull and contusions in the brain.

On hospital day four, Jeansonne underwent surgery to repair the fractures, stabilize internal organs, and insert a feeding tube into the stomach. On hospital day twelve, he started to have fevers with an elevated heart rate. A bronchoscopy was performed and the results failed to demonstrate any source of infection. He remained in a coma.

After three weeks in intensive care, Jeansonne was discharged to the Veteran's Administration Medical Center in Denver. He remained unresponsive, but he had a few episodes of spontaneous eye opening and reports of tracking to voice. He took all feeding and liquids through a gastric tube. He had physical, occupational, and massage therapy every day during his six week stay. Upon discharge, he remained bedridden, nonverbal, and mute.

In November, 1995, Jeansonne was admitted to Craig Hospital. he was able to withdraw both upper extremities to pain. He underwent surgery for release of heel cord

contractures and the amputation of his toes. He also received injections for generalized rigidity and spasticity in his neck.

After approximately seven weeks in a neuro-care program, Jeansonne was transferred to a full rehabilitation program. He was able to recover some swallowing function and showed evidence of a mood disorder with symptoms of depression. He generally tolerated tube feedings. His responsiveness improved, and he was able to follow one-step commands; however, he remained mute. Jeansonne was discharged to an assisted care facility in February, 1995.

The final diagnoses were

- 1) Traumatic brain injury with severe brain stem and frontal lobe injuries, nerve palsy, depressed level of responsiveness, paraplegia, and severe impairment in the ability to use language..
- 2) Lack of bowel and bladder control.
- 3) Fracture of left shoulder with decreased range of motion.
- 4) Multiple muscle contractures.

Since discharge, Jeansonne has continued to receive physical, occupational, and speech therapy. He remains in a very low functioning state. It is anticipated he will remain totally dependent throughout the remainder of his life.

## **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Dr. Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the loss experienced by Carl Jeansonne based on his pre-accident condition.

It is very important to recognize the monetary losses to Carl Jeansonne. One can calculate that loss by analyzing various employment records, compensation plans, medical records, and Mr. Jeansonne's Life Care Plan. General economic data including data on interest rates, inflation, wage growth indices, labor force data and geographic differentials, age-earnings profiles, retirement and pension information, and documents regarding time contributions for Mr. Jeansonne's household activities are also important to this case.

The Life Care Plan describes the following services and equipment that Carl Jeansonne will require in the future: assistance at home or in a care facility, medical care, wheelchair needs and accessories, orthopedic equipment, supplies, medications, transportation, and aids for independent function.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he has been unable to work or generate any wages or benefit earnings. The medical and life care expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by his inability to work and the accumulating medical and life care expenses his current physical condition will require. Future losses are based on the estimation that Mr. Jeansonne, now 63, will live to be approximately 75 years old. Mr. Jeansonne's current medical condition will require that he be in a convalescent care facility until the time of his death.

## Appendix H

### No Liability Information/Severe Injury

Carl Jeansonne and Pearl Jeansonne, Plaintiffs  
v.  
Stevenson Trucking, Defendant

This is a personal injury case arising out of a motor vehicle accident which occurred on August 11, 1995 on westbound Interstate 70, approximately 1/2 mile west of the Highway I-70 and Highway I-225 interchange in Denver. The claim is brought by Plaintiffs Carl Jeansonne and his wife, Pearl Jeansonne. They claim that Stevenson Trucking was negligent in the operation of a motor vehicle and as a result of the negligence Carl Jeansonne was injured. The truck was operated by Charles Landau, an employee of defendant Stevenson Trucking. Stevenson Trucking admits that the operator was its employee acting within the course of his employment, thus making Stevenson Trucking liable for any negligence of its employee.

In a prior judicial hearing, the defendant Stevenson Trucking was determined to be liable (at fault) for negligence in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner. Therefore, you will not have to determine which party was a fault.

#### Witnesses

##### 1. Richard Cile, M.D. (Treating Physician)

Upon direct examination, Richard Cile testifies to the following:

I am a staff physician at Denver General Hospital. I graduated from the University of Michigan School of Medicine and came to Denver to intern at the University of Colorado Medical Center. I am a board-certified neurologist with expertise in the field of physical medicine and rehabilitation.

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Carl Jeansonne was airlifted to Denver General Hospital shortly after the accident on August 11, 1995. He presented to the emergency room with rigid lower extremities and no spontaneous movement. Examination of his head, eyes, ear, and neck showed multiple abrasions, lacerations, and edema. His right pupil was dilated, and he had an unreactive left pupil. His left upper extremity had a closed humerus fracture. A chest X-ray showed multiple left-sided rib fractures and a left clavicle fracture. A CT scan of his head showed multiple fractures of the skull and contusions in the brain.

On hospital day four, Jeansonne underwent surgery to repair the fractures, stabilize internal organs, and insert a feeding tube into the stomach. On hospital day

twelve, he started to have fevers with an elevated heart rate. A bronchoscopy was performed and the results failed to demonstrate any source of infection. He remained in a coma.

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After approximately seven weeks in a neuro-care program, Jeansonne was transferred to a full rehabilitation program. He was able to recover some swallowing function and showed evidence of a mood disorder with symptoms of depression. He generally tolerated tube feedings. His responsiveness improved, and he was able to follow one-step commands; however, he remained mute. Jeansonne was discharged to an assisted care facility in February, 1995.

The final diagnoses were

- 1) Traumatic brain injury with severe brain stem and frontal lobe injuries, nerve palsy, depressed level of responsiveness, paraplegia, and severe impairment in the ability to use language..
- 2) Lack of bowel and bladder control.
- 3) Fracture of left shoulder with decreased range of motion.
- 4) Multiple muscle contractures.

Since discharge, Jeansonne has continued to receive physical, occupational, and speech therapy. He remains in a very low functioning state. It is anticipated he will remain totally dependent throughout the remainder of his life.

## **2. Patricia Scanlon Ph.D. (Economist)**

Upon direct examination, Patricia Scanlon testifies to the following:

I have a Ph.D. in economics from Northwestern University. My area of expertise in the field of economics is the evaluation of losses resulting from personal injury.

I can offer a professional opinion as to the loss experienced by Carl Jeansonne based on his pre-accident condition.

It is very important to recognize the monetary losses to Carl Jeansonne. One can calculate that loss by analyzing various employment records, compensation plans, medical records, and Mr. Jeansonne's Life Care Plan. General economic data including data on interest rates, inflation, wage growth indices, labor force data and geographic differentials, age-earnings profiles, retirement and pension information, and documents regarding time contributions for Mr. Jeansonne's household activities are also important to this case.

The Life Care Plan describes the following services and equipment that Carl Jeansonne will require in the future: assistance at home or in a care facility, medical care, wheelchair needs and accessories, orthopedic equipment, supplies, medications, transportation, and aids for independent function.

Based on these sources, I foresee losses in two critical areas. The first critical area is past loss. Past losses are calculated from the time of the accident to the present. Due to Mr. Jeansonne's injuries he has been unable to work or generate any wages or benefit earnings. The medical and life care expenses accumulated until now are also considered past losses.

The other critical area of loss for Mr. Jeansonne is future loss created by his inability to work and the accumulating medical and life care expenses his current physical condition will require. Future losses are based on the estimation that Mr. Jeansonne, now 63, will live to be approximately 75 years old. Mr. Jeansonne's current medical condition will require that he be in a convalescent care facility until the time of his death.

## Appendix I

### Compensatory Damages Form

In a prior judicial hearing, the defendant Stevenson Trucking was determined to be liable (at fault) for negligence in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner. Therefore, you will not have to determine which party was a fault. Your task will be to award damages to the plaintiff, Carl Jeansonne.

Please consider how you, as a juror, might decide this civil case. Of course, in a real trial, you would have much more information. However, based just on the limited information that you have received, please answer the following questions about the lawsuit against Stevenson Trucking.

#### **Compensatory damages instruction**

The Court has determined that the defendant was negligent in that an employee of Stevenson Trucking operated a tractor-trailer in a careless, reckless and negligent manner.

In view of this determination, the only matter remaining for you to determine is:

“What is the total amount of damages incurred by the plaintiff and caused by the negligence of the defendant?”

In determining such damages, you shall consider the following:

1. any non-economic losses or injuries incurred to the present time, or which will probably be incurred in the future, including: pain and suffering; inconvenience; emotional stress; and impairment of the quality of life.
2. any economic losses incurred to the present time, or which will probably be incurred in the future, including: loss of earnings or impairment of earning capacity; and reasonable and necessary medical, hospital and other expenses.

The Court’s determination that the defendant was negligent should not influence you in determining these issues.

**Compensatory damages award \$ \_\_\_\_\_**

**Please write 2 or 3 sentences to explain how you determined a compensatory award.**

## Appendix J

### Punitive Damages Evidence

#### Witnesses

##### **1. Chad Henry, MBA (Human Resources Manager for Stevenson Trucking)**

Upon direct examination, Chad Henry testifies to the following.

I have responsibility for personnel decisions at Stevenson Trucking, including hiring and overseeing drivers. I have held this position for eight years. I follow the company's policies for hiring long distance truck drivers. These policies are established by Robert Stevenson, President of Stevenson Trucking. We at Stevenson Trucking were aware of the driving record of Charles Landau. Documented in our files are records of five accidents resulting in personal injury charged to Landau. One accident resulted in the death of a pedestrian. We also knew about numerous traffic violations charged to Landau and a discharge record from a former employer related to Landau's accident record while employed there. In 1990, Landau was arrested and charged with driving under the influence, although the charge was later reduced to driving while ability impaired. Landau apparently took alcohol education courses, paid a fine, and performed community service as conditions of his sentence.

##### **2. Robert Stevenson (President of Stevenson Trucking)**

Upon direct examination, Robert Stevenson testifies to the following.

I established the company's policies for hiring long distance truck drivers. At Stevenson Trucking, we routinely run a motor vehicle check on all applicants to ensure an 18-month safe driving record. Although Landau had received citations for a number of other traffic offenses in the past, apparently none of them had occurred in the previous 18 months. And, because Stevenson Trucking had been having significant difficulty finding experienced drivers, we hired Landau despite our knowledge of his driving record. In fact, we hired several drivers within a very short period of time so as not to lose a profitable hauling contract. We had no programs in place to monitor drivers' safety records. Our policies for hiring long distance truck drivers did not adhere to the U.S. Department of Transportation's Highway Traffic Safety Administration standards for record checks or safety and training programs.

##### **3. Derek Temple, CPA (Accountant at Stevenson Trucking)**

Upon direct examination, Derek Temple testifies to the following.

According to our records and our tax records on file at Stevenson Trucking and with the IRS, in 1992, Stevenson Trucking employed 450 people and listed net profits of approximately \$19.7 million.

## Appendix K

### Punitive Damages Form

#### **Punitive damages instruction**

If you award the plaintiff actual damages on his claim of negligence, then you shall consider whether punitive damages should be assessed against the defendant. If you find that the injury complained of was attended by circumstances of fraud or malice, then in addition to actual damages, you may also assess a reasonable sum as punitive damages. Punitive damages, if assessed, are to be assessed as punishment of the defendant, and as an example to others.

Malice means despicable conduct which is carried on by the defendant with a willful and conscious disregard for the safety of others. A person acts with conscious disregard of the safety of others when he is aware of the probable dangerous consequences of his conduct and willfully fails to avoid those consequences.

Fraud means an intentional misrepresentation, deceit or concealment of a material fact known to the defendant with the intention on the part of the defendant of causing injury.

The law provides no fixed standards as to the amount of such punitive damages.

In arriving at any award of punitive damages, you are to consider the following:

- (1) The reprehensibility of the conduct of the defendant.
- (2) The amount of punitive damages which will have a deterrent effect on the defendant in the light of defendant's financial condition.

**Should punitive damages be assessed against the defendant? (circle one) YES  
NO**

**If you circled yes, please write the amount of punitive damages.**

**Punitive damages award: \$ \_\_\_\_\_**

**Please write 2 or 3 sentences to explain how you determined a punitive damages award.**

Appendix L  
Juror Questionnaire

Please answer the following questions using this scale:

1	2	3	4	5	6	7	8	9	10
None or Not at all		Some or Somewhat		Moderate or Moderately		Much or Quite		Extreme or Extremely	

Please answer the following questions about the injuries suffered by the plaintiff, Carl Jeansonne.

1. How much sympathy do you feel for the plaintiff? \_\_\_\_\_
2. How much physical pain has the plaintiff suffered? \_\_\_\_\_
3. How much time will the physical pain last? \_\_\_\_\_
4. How much mental suffering has the plaintiff endured? \_\_\_\_\_
5. How long will the mental suffering last? \_\_\_\_\_
6. To what degree is the plaintiff disabled permanently? \_\_\_\_\_
7. To what degree is the plaintiff disfigured? \_\_\_\_\_
8. How visible are the plaintiff's injuries to other people? \_\_\_\_\_
9. Overall, how serious are the plaintiff's injuries? \_\_\_\_\_

Please answer the following questions about the **actions of the defendant, Stevenson Trucking.**

10. How careful was the defendant? \_\_\_\_\_
11. To what extent were the defendant's actions malicious? \_\_\_\_\_
12. To what extent were the defendant's actions morally wrong? \_\_\_\_\_
13. To what extent were the defendant's actions selfish and greedy? \_\_\_\_\_
14. To what extent should the defendant be punished? \_\_\_\_\_

Please answer the following questions using this scale:

1	2	3	4	5	6	7	8	9	10
None or Not at all		Some or Somewhat		Moderate or Moderately		Much or Quite		Extreme or Extremely	

Please answer the following questions about the **defendant's ability to compensate the plaintiff, Carl Jeansonne.**

15. How wealthy is the defendant? \_\_\_\_\_

16. How able is the defendant to financially compensate the plaintiff? \_\_\_\_\_

Please answer the following questions using this scale:

1	2	3	4	5	6	7	8	9	10
None or Not at all		Some or Somewhat		Moderate or Moderately		Much or Quite		Extreme or Extremely	

Questions about the **compensatory damages award** you assigned.

17. To what extent did each of the following factors influence your decision about a **compensatory damages award**:

- a. the severity of the plaintiff's injuries \_\_\_\_\_
- b. the cost of treating the plaintiff's injuries \_\_\_\_\_
- c. the lost earning capacity of the plaintiff \_\_\_\_\_
- d. the plaintiff's likely pain and suffering \_\_\_\_\_
- e. the actions of the defendant \_\_\_\_\_
- f. the ability of the defendant to compensate the plaintiff \_\_\_\_\_
- g. other \_\_\_\_\_

18. To what extent will the **compensatory** damage award you assigned:

- a. reimburse the plaintiff for his lost earning capacity \_\_\_\_\_
- b. reimburse the plaintiff for his medical costs \_\_\_\_\_
- c. pay the plaintiff for his pain and suffering \_\_\_\_\_
- d. punish the defendant, Stevenson Trucking \_\_\_\_\_
- e. cause the defendant to be more careful in the future \_\_\_\_\_
- f. cause other trucking companies to be more careful in the future \_\_\_\_\_
- g. other \_\_\_\_\_

Please answer the following questions using this scale:

1	2	3	4	5	6	7	8	9	10
None or Not at all		Some or Somewhat		Moderate or Moderately		Much or Quite		Extreme or Extremely	

Finally, some questions about the **punitive damages award** you assigned.

19. To what extent did each of the following factors influence your decision about a **punitive damages award**:

- a. the severity of the plaintiff's injuries \_\_\_\_\_
- b. the cost of treating the plaintiff's injuries \_\_\_\_\_
- c. the lost earning capacity of the plaintiff \_\_\_\_\_
- d. the plaintiff's likely pain and suffering \_\_\_\_\_
- e. the actions of the defendant \_\_\_\_\_
- f. the ability of the defendant to compensate the plaintiff \_\_\_\_\_
- g. other \_\_\_\_\_

20. To what extent will the **punitive damage award** you assigned:

- a. reimburse the plaintiff for his lost earning capacity \_\_\_\_\_
- b. reimburse the plaintiff for his medical costs \_\_\_\_\_
- c. pay the plaintiff for his pain and suffering \_\_\_\_\_
- d. punish the defendant, Stevenson Trucking \_\_\_\_\_
- e. cause the defendant to be more careful in the future \_\_\_\_\_
- f. cause other trucking companies to be more careful in the future \_\_\_\_\_
- g. other \_\_\_\_\_

## Appendix M

Listed below are a number of statements that describe attitudes that different people have. There are no right or wrong answers, only opinions. Read each item and decide whether you agree or disagree with the statement and to what extent. If you strongly agree circle 7; if you strongly disagree circle 1; if you feel neutral or undecided, the midpoint is 4.

- |                                |                    |
|--------------------------------|--------------------|
| (1) Disagree strongly          | (5) Agree slightly |
| (2) Disagree                   | (6) Agree          |
| (3) Disagree slightly          | (7) Agree strongly |
| (4) Neither disagree nor agree |                    |

disagree	agree	
1 2 3 4 5 6 7		It's not worth my time or effort to pay back someone who has wronged me.
1 2 3 4 5 6 7		It is important for me to get back at people who have hurt me.
1 2 3 4 5 6 7		I try to even the score with anyone who hurts me.
1 2 3 4 5 6 7		It is always better not to seek vengeance.
1 2 3 4 5 6 7		I live by the motto "Let bygones be bygones."
1 2 3 4 5 6 7		There is nothing wrong in getting back at someone who has hurt you.
1 2 3 4 5 6 7		I don't just get mad, I get even.
1 2 3 4 5 6 7		I find it easy to forgive those who have hurt me.
1 2 3 4 5 6 7		I am not a vengeful person.
1 2 3 4 5 6 7		I believe in the motto "An eye for an eye, a tooth for a tooth."
1 2 3 4 5 6 7		Revenge is morally wrong.
1 2 3 4 5 6 7		If someone causes me trouble, I'll find a way to make them regret it.
1 2 3 4 5 6 7		People who insist on getting revenge are disgusting.
1 2 3 4 5 6 7		If I am wronged, I can't live with myself unless I get revenge.
1 2 3 4 5 6 7		Honor requires that you get back at someone who has hurt you.
1 2 3 4 5 6 7		It is usually better to show mercy than to take revenge.
1 2 3 4 5 6 7		Anyone who provokes me deserves the punishment that I give them.

Listed below are a number of statements that describe attitudes that different people have. There are no right or wrong answers, only opinions. Read each item and decide whether you agree or disagree with the statement and to what extent. If you strongly agree circle 7; if you strongly disagree circle 1; if you feel neutral or undecided, the midpoint is 4.

- |                                |                    |
|--------------------------------|--------------------|
| (1) Disagree strongly          | (5) Agree slightly |
| (2) Disagree                   | (6) Agree          |
| (3) Disagree slightly          | (7) Agree strongly |
| (4) Neither disagree nor agree |                    |

disagree      agree

1 2 3 4 5 6 7      It is always better to "turn the other cheek."

1 2 3 4 5 6 7      To have a desire for vengeance would make me feel ashamed.

1 2 3 4 5 6 7      Revenge is sweet.

**Indicate the number of times you have been vengeful within the past few months (circle)**

0    1    2    3    4    5    6    7    8 or more

**How many people would you get back at if you could? (circle)**

0    1    2    3    4    5    6    7    8 or more

Appendix N  
**Debriefing Statement**

The study in which you have participated is called *Compensatory and Punitive Damage Awards in Civil Cases*. Psychologists and legal scholars alike are struggling with tort reform regarding punitive and compensatory damages in civil cases. Compensatory damages are designed to reflect only the amount of injury received by the plaintiff and are expected to be independent of the defendant's liability. Punitive damage awards are expected to reflect only the wealth and highly reprehensible conduct of the defendant. Jurors' ability to use appropriate decision processes to decide each of the two types of damages can be empirically assessed through simulation studies; this is one goal of the present research. The primary goal of the present research is to evaluate whether the presence of liability information has an inappropriate impact on jurors' compensatory and punitive damage awards. The effects of such information are currently unknown. A second goal is to evaluate the effects of injury severity on punitive damage awards. If the severity of the plaintiff's injury affects punitive awards, jurors are using information incorrectly, and steps will be necessary to correct this in the legal system. Each of you read a case summary either with or without liability information present and with a severely injured plaintiff or a mildly injured plaintiff. The way in which damage awards are influenced by these factors, if at all, will illustrate the decision processes of individual jurors. The third goal of the research is to investigate the relationship between punitive awards and attitudes toward vengeance. Punitive damages are to punish the defendant and to deter the defendant from similar acts in the future. However, legal scholars suggest that jurors may use punitive damage awards for vengeful purposes; the question is still unresolved. Not only legal scholars and psychologists but the public at large will benefit from knowledge gained through the proposed research; a long-term goal is to shape a more efficient court system in the United States. You have been a part of what is on the leading edge of research in jury decision making. Thank you for your participation! Your contribution is greatly appreciated. If you have any questions or concerns, please contact me at any time.

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Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
1	1	2	18	2	1	1	2	2	3000	2000
2	2	2	18	2	1	1	2	2	20000000	10000
3	1	2	18	1	1	1	2	2	3000000	1000000
4	2	2	18	1	1	1	2	2	1125000	500000
5	1	2	19	1	2	1	2	2	250000	200000
6	2	2	18	2	1	1	2	2	10000000	8000000
7	1	2	24	1	3	1	2	2	1000000	250000
8	2	2	19	1	1	1	2	2	1955000	.
9	1	2	18	1	1	1	2	2	20000	0
10	2	2	18	2	1	1	2	2	3500000	1700000
11	1	2	18	2	1	1	2	2	10000	0
12	2	2	18	1	2	1	2	2	1500000	500000
13	1	2	18	2	1	1	2	2	.	.
14	2	2	20	2	2	1	2	2	2000000	10000000
15	1	2	20	1	3	1	2	2	4000000	10000000
16	2	2	18	2	1	2	2	2	10000000	3000000
17	1	2	18	2	1	1	2	2	500000	500000
18	2	2	23	2	4	2	2	2	10000000	2000000
19	1	2	18	2	1	1	2	2	150000	6000000
20	2	2	18	2	1	1	2	2	300000	300000
21	1	2	18	2	1	1	2	2	500000	1000000
22	2	2	18	1	1	1	2	2	1500000	5000
23	1	2	18	2	1	1	2	2	1000000	5000000
24	2	2	18	2	1	1	2	2	1000000	150000
25	1	2	19	1	1	1	2	1	750000	1000000
26	2	2	18	2	1	1	2	2	10000	5000
27	1	2	18	1	1	1	2	2	100000	20000
28	2	2	22	2	4	1	2	2	60000	.
29	1	2	18	1	1	1	2	2	500000	1000000
30	2	2	28	1	3	1	2	2	500000	250000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
31	1	2	18	2	1	1	2	2	2000000	0
32	2	2	18	2	1	1	2	2	520000	600000
33	1	2	18	1	1	1	2	2	500000	0
34	2	2	18	1	1	1	2	2	1800000	2500000
35	1	2	18	2	1	1	2	2	50000	4000
36	2	2	18	2	1	1	2	2	2000000	3000000
37	1	2	20	2	3	1	2	2	37000	20000
39	1	2	18	1	1	1	2	2	1000000	500000
40	2	2	18	1	1	1	2	2	1500000	1500000
41	1	2	18	1	1	1	2	2	500000	0
42	2	2	18	2	1	1	2	2	3500000	2500000
43	1	2	18	2	1	1	2	2	1500000	1000000
44	2	2	18	2	1	1	2	2	1000000	500
45	1	2	18	2	1	1	2	2	100000	200000
46	2	2	20	2	3	2	2	2	1100000	2000000
47	1	2	20	1	2	1	2	2	500000	0
48	2	2	19	2	1	1	2	2	100000	0
49	1	2	18	2	1	2	2	2	200000	2000000
50	2	2	18	2	1	1	2	2	20000000	2000000
51	1	2	18	2	1	1	2	2	400	0
52	2	2	19	1	2	1	2	2	500000	1000000
53	1	2	18	2	1	1	2	2	300000	25000
54	2	2	19	1	2	1	2	2	2000000	30000000
55	1	2	19	1	1	2	2	2	20000	0
56	2	2	18	1	1	2	2	2	5500000	9000000
57	1	2	18	2	1	1	2	2	55000	10000
58	2	2	19	1	1	1	2	2	1000000	5000000
59	1	2	19	2	1	1	2	2	5000	500
60	2	2	19	2	1	1	2	2	500000	150000
61	1	2	19	1	1	1	2	2	100000	0

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
62	2	2	18	2	1	1	2	2	500000	1000000
63	1	2	18	2	1	1	2	2	100000	0
64	2	2	18	2	1	1	2	2	25000	15000
65	1	2	17	1	1	1	2	2	500000	300000
66	2	2	18	2	1	1	2	2	500000	0
67	1	2	18	2	1	2	2	2	50000	50000
68	2	2	18	2	1	1	2	2	100000	75000
69	1	2	18	2	1	1	2	2	75000	75000
70	2	2	18	2	1	1	2	2	4000000	5000000
71	1	2	18	2	1	1	2	2	600000	20000
72	2	2	18	1	1	1	2	2	600000	500000
73	1	2	18	2	2	1	2	2	60000	4000000
74	2	2	19	2	1	1	2	2	900000	2000000
75	1	2	18	2	1	1	2	2	800000	0
76	2	2	27	1	2	1	2	2	250000	2000000
77	1	2	23	1	2	1	2	2	10000	45000
79	1	2	18	2	1	1	2	2	0	.
80	2	2	18	2	1	1	2	2	400000	0
81	1	2	19	2	2	1	2	2	100000	25000
82	2	2	19	1	1	1	2	2	3000000	0
83	1	2	18	1	1	1	2	2	2000	0
84	2	2	18	1	1	1	2	2	1000000	150000
85	1	2	18	1	1	1	2	2	15000	15000000
87	1	2	18	2	1	1	2	2	250000	50000
88	2	2	18	1	1	1	2	2	1500000	100000
89	1	2	18	2	1	1	2	2	250000	50000
90	2	2	18	2	1	1	2	2	1250000	500000
91	1	2	18	2	1	1	2	2	25000	50000
92	2	2	18	1	1	1	2	2	5000000	1000000
93	1	2	24	1	3	1	2	2	154000	13940000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
94	2	2	19	1	1	2	2	2	1000000	250000
95	1	2	18	2	1	1	2	2	100000	50000
96	2	2	18	1	1	1	2	2	950000	500000
97	1	2	18	1	1	1	2	2	400000	0
98	2	2	18	2	1	1	2	2	.	.
99	1	2	18	2	1	1	2	1	.	3000000
100	2	2	18	1	1	2	2	2	67000000	500000
101	1	2	18	2	1	1	2	2	21170	5000
102	2	2	18	2	1	1	2	2	800000	1000000
103	1	2	18	2	1	1	2	2	300000	0
104	2	2	19	2	1	1	2	2	.	0
105	1	2	19	2	2	1	2	2	5000	0
106	2	2	19	2	2	1	2	2	500000	1000000
107	1	2	19	2	2	1	2	2	10000	20000
108	2	2	18	1	1	1	2	2	500000	750000
109	1	2	18	2	1	1	2	2	10000	5000
110	2	2	18	2	1	1	2	2	1000000	150000
111	1	2	18	2	1	1	2	2	315000	100000
112	2	2	19	1	2	1	2	2	3500000	200000
113	1	2	23	1	4	1	2	2	.	19700000
114	2	2	19	2	2	2	2	2	10500000	5000000
115	1	2	18	2	1	1	2	2	25000	5000
116	2	2	18	2	1	1	2	2	300000	200000
117	1	2	18	2	1	1	2	2	80000	22500
118	2	2	18	2	1	1	2	2	1000000	0
119	1	2	18	2	1	1	2	2	1000000	0
120	2	2	19	2	2	1	2	2	1000000	5000000
121	1	2	19	1	3	1	2	2	90000	6895000
122	2	2	18	2	1	2	2	2	2000000	7000
123	1	2	18	2	1	1	2	2	85000	15000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
124	2	2	18	2	1	1	2	2	9700000	10000000
125	1	2	18	2	1	2	2	2	15000	0
126	2	2	23	1	1	1	2	2	5000000	10000000
127	1	2	18	2	1	1	2	2	200000	0
128	2	2	35	2	3	1	1	2	9900000	5000000
129	1	2	18	2	1	1	2	2	35000	10000
130	2	2	18	2	1	1	2	2	30000	0
131	1	2	18	2	1	1	2	2	40000	10000
132	2	2	18	2	1	1	2	2	55000	15000000
133	1	2	18	1	1	1	2	2	500000	10000
134	2	2	18	2	1	1	2	2	3000000	3000000
135	1	2	18	1	1	1	2	2	250000	500000
136	2	2	19	2	1	1	2	2	.	0
137	1	2	18	2	1	1	2	2	200000	1000
138	2	2	18	2	1	1	2	2	800000	550000
139	1	2	18	2	1	1	2	2	100000	8000
140	2	2	20	2	3	1	2	2	250000	3000000
141	1	2	18	2	1	1	2	2	26000	6000
142	2	2	18	2	1	1	2	2	10000	10000
143	1	2	18	2	1	1	2	2	250000	1000000
144	2	2	18	2	1	1	2	2	500000	1000000
145	1	2	18	2	1	1	2	2	2500000	1000000
146	2	2	18	1	1	1	2	2	5000000	5000000
147	1	2	18	1	1	2	2	1	700000	50000
148	2	2	19	2	1	1	2	2	6000000	0
149	1	2	18	1	1	1	2	2	3000000	0
150	2	2	18	2	1	1	2	2	91400	10000
151	1	2	18	2	1	1	2	2	98000	5000000
161	1	2	18	1	1	1	2	2	12000000	1500000
162	2	2	21	1	1	1	1	2	2500000	0

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
163	1	2	18	1	2	1	2	2	10000	1000000
164	2	2	18	2	1	1	2	2	10000000	0
166	2	2	18	1	1	2	2	2	4500000	0
167	1	2	18	2	1	1	2	2	100000	0
168	2	2	18	2	1	1	2	2	2000000	75000
187	1	1	18	1	1	1	2	2	750000	1750000
188	1	1	18	2	1	1	2	2	2500000	10000
189	1	1	18	2	1	1	2	2	15000	6000
190	2	1	18	2	1	1	2	2	1000000	1000000
191	1	1	19	1	2	2	2	2	1000000	0
192	2	1	18	2	1	2	2	2	3000000	2000000
193	1	1	18	2	1	1	2	2	200000	10000
194	2	1	19	1	1	1	2	2	1000000	2000000
195	1	1	22	1	3	1	2	2	125000	0
196	2	1	18	2	1	1	2	2	500000	10500000
197	1	1	18	2	1	1	2	2	1000000	0
198	2	1	19	1	1	1	2	2	950000	2500000
199	1	1	18	2	1	1	1	1	26000	0
200	2	1	18	2	1	2	2	2	2510000	500000
201	1	1	19	1	1	1	2	2	100000	25000
202	2	1	18	2	1	1	2	2	700000	100000
203	1	1	18	2	1	1	2	2	75000	1000000
204	2	1	18	2	1	1	2	2	4500000	8000000
205	1	1	19	2	1	1	2	2	1000000	20000
206	2	1	24	1	2	1	2	2	3100000	5000000
207	1	1	18	1	1	1	2	2	300000	700000
208	2	1	18	2	1	2	2	2	5000000	5000000
209	1	1	18	2	1	1	2	2	100000	30000
210	2	1	18	1	1	1	2	2	1500000	15000000
211	1	1	18	1	1	1	2	2	230000	50000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
212	2	1	18	2	1	1	2	2	500000	150000
213	1	1	18	2	1	1	2	2	1000000	100000
214	2	1	22	1	4	1	2	2	7000000	5000000
215	1	1	20	1	2	1	2	2	750000	5000000
216	2	1	18	2	1	1	2	2	500000	500000
217	1	1	19	2	1	1	2	2	45000	75000
218	2	1	21	1	3	1	2	2	4000000	2000000
219	1	1	19	2	2	1	2	2	150000	125000
220	2	1	18	2	1	2	2	2	300000	8000
221	1	1	18	2	1	2	2	2	115000	5000
222	2	1	20	2	3	1	2	2	3000000	19700000
223	1	1	18	2	1	1	2	2	60000	400000
224	2	1	18	2	1	1	2	2	660000	800000
225	1	1	18	1	1	1	2	2	4500000	2500000
226	2	1	19	2	2	1	2	2	6000	2500000
227	1	1	18	2	1	1	2	2	6000	1750
228	2	1	18	2	1	2	2	2	6000000	500000
229	1	1	18	2	1	2	2	2	200000	0
230	2	1	18	1	1	2	2	2	688320	215000
231	1	1	19	2	2	1	2	2	500000	500000
232	2	1	48	2	1	1	2	2	200000	0
233	1	1	20	1	3	1	2	2	50000	35000
234	2	1	19	1	1	2	2	2	3000000	1500000
235	1	1	18	2	1	1	2	2	10000	0
236	2	1	18	1	1	1	2	2	2000000	3000000
237	1	1	18	1	1	1	2	2	2000000	2500000
238	2	1	18	1	1	1	2	2	1800000	500000
239	1	1	18	1	1	1	2	2	250000	0
240	2	1	18	2	1	1	2	2	2500000	400000
241	1	1	18	1	2	1	2	2	350000	0

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
242	2	1	18	1	1	1	2	2	2000000	4000000
243	1	1	18	2	1	1	2	2	25000	20000
244	2	1	23	1	2	1	2	2	1220000	10000000
245	1	1	18	1	1	1	2	2	.	0
246	2	2	18	1	1	1	2	2	3000000	50000
247	1	1	18	2	1	1	2	2	230000	400000
248	2	1	19	1	1	1	2	2	3000000	7000000
249	1	1	18	2	1	1	2	2	100000	100000
250	2	1	18	2	1	1	2	2	100000	50000
251	1	1	18	2	1	1	2	2	600000	400000
252	2	1	18	2	1	1	2	2	950000	13000
253	1	1	19	2	1	1	2	2	100000	75000
254	2	1	18	2	1	1	2	2	200000	5000
255	1	1	18	2	1	2	2	2	600000	1000000
256	2	1	18	2	1	1	2	2	.	100000
257	1	1	19	1	1	1	2	2	.	0
258	2	1	18	1	1	1	2	2	500000	100000
259	1	1	18	2	1	1	2	2	30000	20000
260	2	1	20	1	1	2	2	2	1130000	1000000
261	1	1	19	1	2	1	2	2	80000	200000
262	2	1	19	1	2	1	2	2	500000	250000
263	1	1	18	1	1	1	2	2	50000	0
264	2	1	18	2	1	1	2	2	800000	.
265	1	1	18	2	1	1	2	2	200000	100000
266	2	1	18	2	1	1	2	2	5000000	2000000
267	1	1	18	2	1	1	2	2	2000000	3000000
268	2	1	18	2	1	1	2	2	1000000	1000000
269	1	1	18	1	1	1	2	2	450000	1200000
270	2	1	18	2	1	1	2	2	300000	0
271	1	1	19	2	2	1	2	2	2000000	8000000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
272	2	1	19	2	2	1	2	2	2300000	6000000
273	1	1	19	1	2	1	2	2	50000	0
274	2	1	17	2	1	2	2	2	250000	100000
275	1	1	18	2	1	1	2	2	500000	50000
276	2	1	18	2	1	1	2	2	3200000	5000000
277	1	1	18	1	1	2	2	2	500000	5000000
278	2	1	18	1	1	1	2	2	50000000	10000000
279	1	1	18	2	1	1	2	2	700000	100000
280	2	1	18	2	1	1	2	1	5000000	10000000
281	1	1	20	2	3	1	2	2	305000	3000000
282	2	1	18	1	1	1	2	2	500000	2000000
283	1	1	18	2	1	1	2	2	750000	250000
284	2	1	23	1	2	1	2	2	500000	4000000
285	1	1	20	2	3	1	2	2	1000000	19700000
286	2	1	19	1	2	1	2	2	400000	240000
287	1	1	21	1	4	1	2	2	2000000	6000000
288	2	1	18	2	1	1	2	2	800000	200000
289	1	1	20	1	3	1	2	2	0	0
290	2	1	18	2	1	1	2	2	500000	1000000
291	1	1	18	1	1	1	2	2	274800	1000000
292	2	1	18	2	1	1	2	2	1000000	2000000
293	1	1	18	2	1	1	2	2	800000	350000
294	2	1	18	1	1	1	2	2	75000	1000
295	1	1	18	1	1	1	2	2	4000000	5000000
296	2	1	18	1	1	2	2	2	2000000	200000
297	1	1	18	1	1	1	2	2	20000	20000
298	2	1	18	2	1	1	2	2	75000	15000
299	1	1	18	2	1	1	2	2	250000	50000
300	2	1	18	2	1	1	2	2	1000000	3000000
301	1	1	18	2	1	1	2	2	30000	50000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
302	2	1	18	2	1	1	2	2	500000	300000
303	1	1	18	2	1	1	2	2	500000	100000000
304	2	1	21	2	3	2	2	2	150000000	50000000
305	1	1	18	2	1	2	2	2	30000	0
306	2	1	19	2	1	1	2	2	1800000	700000
307	1	1	19	1	2	1	2	2	255000	0
308	2	1	18	2	1	1	2	2	500000	250000
309	1	1	18	2	1	1	2	2	10000	0
310	2	1	18	2	1	1	2	2	2500000	100000
311	1	1	18	1	1	2	2	2	250000	1000000
312	2	1	18	2	1	1	2	2	4000000	2000000
313	1	1	18	2	1	1	2	2	2000000	0
314	2	1	19	2	2	1	2	2	1500000	100000
315	1	1	28	2	2	1	2	2	100000	1000000
316	2	1	18	2	1	2	2	2	500000	300000
317	1	1	20	2	3	2	2	2	500000	100000
318	2	1	18	2	1	2	2	2	3000000	5000000
319	1	2	18	2	1	1	2	2	20000	50000
320	2	1	30	2	2	1	2	2	4500000	3000000
321	1	1	18	2	1	1	2	2	100000	0
322	2	1	20	2	4	1	2	2	2000000	2000000
323	1	1	18	1	1	1	2	2	550000	4000000
324	2	1	18	2	1	1	2	2	900000	250000
325	1	1	18	2	1	1	2	2	500000	1000000
326	2	1	18	1	1	1	2	2	500000	0
327	1	1	19	1	2	1	2	2	500000	500000
328	2	1	18	2	1	1	2	2	400000	2000000
329	1	1	18	2	1	1	2	2	40500	0
330	2	1	19	2	2	1	2	2	1500000	1000000
331	1	1	18	1	1	1	2	2	1000000	10000000

Participant Number	Injury 1=mild, 2= severe	Liability 1=mild, 2= severe	Age	Gender 1=male 2=female	Class 1=F, 2=S 3=J, 4=S	Ethnicity 1=white 2=non-white	Jury Experience? 1=yes, 2=no	Civil case experience? 1=yes, 2=no	Compensatory Damage Award	Punitive Damage Award
332	2	1	18	2	1	1	2	2	500000	2250000
333	1	1	18	2	1	1	2	2	25000	0
334	2	1	19	2	2	1	2	2	30000	5000
335	1	1	18	2	1	1	2	2	22000	100000
336	2	1	18	2	1	1	2	2	80000	80000
337	1	1	18	2	1	1	2	2	50000	19700000
338	2	1	18	2	1	1	2	2	1000000	200000
339	1	1	18	2	1	1	2	2	120000	500000
340	2	1	18	2	1	1	2	2	4500000	1500000
341	1	1	18	1	1	1	2	2	200000	0
342	2	1	18	2	1	1	2	2	7500000	3500000

Participant Manipulation Effectiveness Questions																
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	5	7	9	6	4	7	5	3	6	8	7	8	6	7	4	3
2	10	10	10	10	10	9	8	10	10	8	9	6	7	8	7	4
3	8	8	10	8	10	4	3	2	6	9	7	4	2	7	3	3
4	10	10	10	10	10	8	7	8	10	9	8	7	8	10	8	10
5	7	6	6	5	1	4	4	3	4	6	5	9	7	8	2	1
6	10	10	10	10	10	10	8	8	10	10	9	10	10	10	8	9
7	8	7	10	7	10	8	8	2	7	10	6	8	6	7	3	3
8	6	10	10	10	10	9	10	8	9	9	1	1	1	8	10	10
9	9	8	7	7	6	5	5	7	7.5	8	3	3	3	9	10	10
10	10	10	8	9	9	10	10	10	10	9	1	4	8	10	10	10
11	10	9	10	8	6	9	4	5	7	10	9	10	10	10	3	4.5
12	8	5	6	1	1	10	10	10	10	7	3	7	9	6	10	10
13	10	8	7	6	6	6		3	6	10	5	8	6	8	5	10
14	8	10	10	10	9	10	8	10	10	4	9	10	10	10	8	9
15	8	5	10	8	10	8	5	5	7	8	7	7	9	9	6	8
16	10	10	10	10	10	10	10	10	10	8	4	3	3	10	4	3
17	5	8	9	3	2	7	2	1	7	9	2	3	3	9	9	9
18	10	10	8	9	8	10	8	10	9	8	2	6	8	7	7	8
19	7	8	10	6	6	8	1	1	6	10	10	10	10	9	5	10
20	8	9	9	10	10	10	9	10	10	9	2	3	9	9	2	5
21	8	9	10	9	9	8	3	3	8	8	6	9	10	8	7	7
22	9	10	8	9	9	8	6	10	8	7	7	5	7	8	3	3
23	9	8	10	9	10	8	6	3	8	9	3	8	9	7	5	8
24	9	9	9	10	10	10	10	10	10	8	10	6	1	8	4	4
25	6	8	10	3	2	4	2	2	7	10	6	8	7	8	7	9
26	4	4	8	5	3	1	2	7	6	6	6	5	6	6	6	7
27	3.5	6	8	8	6	10	2	2	7	9	5	6	6	8	4	5
28																
29	9	9	10	8	10	10	7	9	8	9	2	8	10	9	10	10
30	4	4	4	4	4	8	4	4	4	10	9	10	8	8	5	5
31	5	6	9	9	7	4	4	2	5	7	6	5	5	7	3	2
32	10	10	10	10	10	9	10	10	10	4	9	6	9	7	10	10
33	9	9	10	8	7	2	1	4	8	10	4	5	3	7	10	10
34	10	10	7	10	10	8	7	6	8	8	8	9	7	8	10	10
35	10	9	9	8	5	5	1	1	7	10	9	8	5	7	8	9
36	10	10	10	10	10	10	10	10	10	9	8	9	8	8	10	10
37	8	7	10	3	4	5	1	1	4	10	8	4	5	7	8	10
39	7	6	8	8	9	5	3	2	7	7	4	6	5	9	5	6
40	10	10	10	10	10	9	9	9	10	10	5	7	9	9	9	9
41	8	10	8	6	5	7	7	3	9	10	6	4	5	9	7	7
42	9	8	10	10	9	8	7	9	8	9	7	8	8	9	10	10
43	8	9	10	9	5	8	7	3	5	10	9	10	10	9	10	10
44	10	10	8	6	8	10	6	10	10	8	2	6	3	3	2	2

Participant Manipulation Effectiveness Questions																
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
45	7	8	9	6	4	3	2	3	7	9	1	3	3	4	8	10
46	9	10	7	10	10	10	8	9	10	9	4	10	10	8	7	9
47	6	7	7	3	3	5	2	2	4	9	1	1	1	4	1	8
48	8	10	9	7	6	7	7	9	9	9	4	3	10	5	10	10
49	8	8	9	7	7	6	4	3	7	9	5	5	5	8	10	10
50	10	10	10	10	10	10	10	10	10	11	1	1	1	1	3	3
51	9	10	10	9	8	9	5	2	8	6	3	2	1	8	8	8
52	8	10	10	10	10	7	8	10	8	9	7	5	7	7	8	8
53	7	8	7	7	9	5	3	3	6	8	6	7	7	7	6	5
54	10	10	10	10	10	8	9	7	9	9	8	6	9	10	9	10
55	9	10	7	4	10	8	5	6	10	4	6	5	4	3	7	9
56	10	10	10	10	10	10	8	10	10	9	1	1	10	10	9	10
57	8	6	8	8	6	2	2	2	6	9	3	1	1	6	4	4
58	9	10	10	10	10	8	6	6	9	9	8	9	6	9	8	10
59	7	7	6	6	4	4	4	5	5	7	3	4	4	3	4	3
60	8	10	8	9	9	8	8	9	9	8	4	4	5	7	5	4
61	6	5	4	2	1	5	1	1	3	5	6	6	7	6	10	9
62	10	10	8	8	8	6	7	8	8	9	1	3	3	10	10	10
63	8	8	10	10	9	8	7	7	8	5	2	2	2	2	8	8
64	9	10	9	10	10	9	9	10	10	10	3	5	3	7	10	10
65	6	8	10	7	5	4	1	1	6	8	7	8	8	8	10	10
66	10	10	10	10	10	10	10	10	10	9	9	10	6	9	4	3
67	8	9	9	9	9	8	8	7	9	9	7	7	8	9	8	8
68	9	10	9	9	10	9	8	8	9	9	6	6	7	6	7	7
69	8	8	8	6	5	5	5	2	4	7	3	3	2	4	3	4
70	10	10	10	10	10	8	7	7	9	10	3	10	10	10	4	6
71	9	8	8	5	5	4	2	5	7	9	6	9	9	10	10	10
72	10	10	10	10	10	10	10	10	10	7	4	8	10	6	6	6
73	9	9	10	7	5	10	1	1	7	7	6	3	10	7	10	10
74	10	10	8	8	7	10	9	8	10	8	6	9	10	9	8	10
75	10	10	10	10	7	5	7	7	8	1	8	10	7	10	10	
76	5	6	6	10	10	10	10	10	10	7	8	8	8	8	6	8
77	8	8	7	3	2	6	1	3	4	9	4	2	1	8	3	4
79	8	8	7	5	5	6	2	1	5	8	5	5	5	7	3	2
80	9	9	8	9	9	6	5	5	8	7	3	5	7	6	9	7
81	5	7	10	5	10	7	3	3	4	7	1	1	1	5	5	4
82	4	8	9	7	9	9	6	5	7	4	5	6	5	5	5	8
83	7	8	10	3	2	4	1	1	3	10	1	1	1	2	10	10
84	8	9	7	9	6	10	5	8	9	8	3	5	1	6	10	9
85	6	6	8	4	4	2	2	2	4	9	5	10	7	9	7	9
87	6	8	10	4	10	5	6	3	5	9	4	3	5	6	5	4
88	9	10	9	9	8	10	10	10	10	10	3	7	5	9	9	10
89	5	4	8	3	5	8	1	1	5	9	2	10	10	8	9	10

Participant Manipulation Effectiveness Questions																
Number	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
90	8	9	9	8	9	10	8	9	9	8	4	2	7	7	9	9
91	9	8	9	8	8	6	4	3	7	9	5	5	5	8	9	10
92	8	10	10	10	10	10	8	7	6	6	3	9	9	7	9	10
93	5	5	9	3	1	3	2	1	3	9	5	7	5	6	6	8
94	9	10	7	10	10	8	7	10	9	10	8	3	9	8	6	3
95	7	8	9	7	5	3	3	4	6	10	6	10	10	8	8	10
96	8	8	7	9	9	8	6	4	8	9	9	6	8	8	2	2
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Participant Manipulation Effectiveness Questions																
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Participant Manipulation Effectiveness Questions																
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Participant Manipulation Effectiveness Questions																
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Participant Manipulation Effectiveness Questions																
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Participant Manipulation Effectiveness Questions																
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Participant Number	Participants' Self Reports of Information Use																							
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14	9	10	8	10	10	9	10	10	8	7	10	10	7	7	7	7	10	10	10	10	10	10	10	10
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Participant Number	Participants' Self Reports of Information Use																							
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45	1	5	7	5	1	1	10	10	5	6	8	5	5	10	8	10	9	5	10	10	5	6	8	5
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Participant Number	Participants' Self Reports of Information Use																							
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f
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61	1	8	8	3	4	4	10	10	3	1	4	5	1	1	1	1	1	8	1	1	1	1	1	1
62	10	10	7	5	4	8	7	4	3	6	4	4	10	10	9	10	10	10	10	10	5	10	10	10
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72	10	10	5	9	8	10	10	10	3	3	9	5	1	1	1	1	10	10	1	1	7	9	9	9
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Participant Number	Participants' Self Reports of Information Use																									
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f		
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92	9	9	9	10	3	7	10	10	10	5	1	3	9	7	7	7	3	1	10	10	9	7	7	9	9	
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107	7	9	5	5	3	3	6	6	6	3	7	7	3	3	7	3	8	8	2	2	2	7	8	8	8	
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118	10	10	10	10	10	10	10	10	4	9	10	10	10	7	10	10	10	10	10	10	10	10	10	10	10	
119	7	7	7	3	3	3	8	8	2	5	4	4	7	6	6	5	2	5	6	6	7	8	8	8	8	

Participant Number	Participants' Self Reports of Information Use																							
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125	8	8	5	9	5	3	3	6	5	1	2	1	1	1	1	1	1	3	1	1	1	1	1	1
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Participant Number	Participants' Self Reports of Information Use																							
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161	7	6	5	7	6	7	7	7	7	6	8	7	6	7	5	6	7	8	6	7	8	7	8	7
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204	10	10	10	8	8	6	10	10	7	6	9	6	10	10	10	7	8	5	10	10	10	6	9	5
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Participant Number	Participants' Self Reports of Information Use																							
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f
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Participant Number	Participants' Self Reports of Information Use																							
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f
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Participant Number	Participants' Self Reports of Information Use																							
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f
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Participant Number	Participants' Self Reports of Information Use																							
	17a	17b	17c	17d	17e	17f	18a	18b	18c	18d	18e	18f	19a	19b	19c	19d	19e	19f	20a	20b	20c	20d	20e	20f
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Participant Number	Participants' Self Reports of Information Use																							
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328	8	7	7	8	7	3	5	7	5	5	4	2	8	8	8	8	9	3	8	8	8	7	6	5
329	8	5	9	8	3	3	4	2	4	4	5	7	.	.	.	.	.	.	.	.	.	.	.	.
330	9	9	9	9	8	1	10	10	10	7	10	10	9	9	9	9	6	1	10	10	9	7	10	8
331	9	10	10	6	3	3	10	10	8	10	10	10	3	3	3	3	10	10	10	10	10	10	10	10
332	9	9	9	9	8	3	7	6	4	8	7	8	9	9	9	9	8	3	5	3	2	6	5	5
333	6	6	8	8	7	4	9	8	5	7	5	6	.	.	.	.	.	.	.	.	.	.	.	.
334	10	10	8	10	10	9	10	10	10	10	10	10	10	10	10	10	10	10	9	9	9	9	9	9
335	5	8	8	6	10	6	6	7	5	4	2	2	5	5	5	5	10	10	10	10	10	10	10	10
336	10	7	7	10	8	6	9	8	4	8	8	8	6	6	5	5	10	6	3	3	3	7	8	8
337	10	10	9	9	10	1	10	10	6	1	2	2	1	1	1	1	10	1	10	10	10	10	10	10
338	10	10	10	10	10	8	10	10	10	8	10	10	9	10	10	10	10	8	10	10	10	10	10	10
339	10	10	10	10	10	1	10	10	10	10	10	10	10	10	10	10	10	10	10	10	1	10	10	10
340	9	9	9	9	9	1	6	9	3	7	7	5	7	9	9	9	9	1	3	5	3	7	5	5
341	8	8	8	7	5	3	8	8	7	7	8	8	2	2	2	2	2	1	1	1	2	1	1	1
342	10	9	10	10	10	7	10	10	9	7	10	10	10	10	10	10	8	5	10	10	10	10	10	10

Participant Number	Total Vengeance Score	Mean Vengeance per question
1	56	2.8
2	48	2.4
3	45	2.25
4	42	2.1
5	60	3
6	55	2.75
7	45	2.25
8	71	3.55
9	69	3.45
10	44	2.2
11	40	2
12	84	4.2
13	58	2.9
14	84	4.2
15	52	2.6
16	59	2.95
17	43	2.15
18	37	1.85
19	50	2.5
20	55	2.75
21	67	3.35
22	54	2.7
23	27	1.35
24	56	2.8
25	71	3.55
26	63	3.15
27	44	2.2
28	60	3
29	51	2.55
30	62	3.1
31	67	3.35
32	51	2.55
33	69	3.45
34	59	2.95
35	48	2.4
36	75	3.75
37	0	0
39	95	4.75
40	26	1.3
41	100	5
42	50	2.5
43	67	3.35
44	55	2.75

Participant Number	Total Vengeance Score	Mean Vengeance per question
45	63	3.15
46	69	3.45
47	56	2.8
48	38	1.9
49	85	4.25
50	49	2.45
51	53	2.65
52	81	4.05
53	59	2.95
54	90	4.5
55	78	3.9
56	92	4.6
57	49	2.45
58	50	2.5
59	78	3.9
60	61	3.05
61	73	3.65
62	45	2.25
63	59	2.95
64	50	2.5
65	72	3.6
66	60	3
67	54	2.7
68	75	3.75
69	78	3.9
70	98	4.9
71	58	2.9
72	42	2.1
73	54	2.7
74	50	2.5
75	56	2.8
76	56	2.8
77	74	3.7
79	67	3.35
80	62	3.1
81	46	2.3
82	92	4.6
83	56	2.8
84	54	2.7
85	89	4.45
87	80	4
88	63	3.15
89	49	2.45

Participant Number	Total Vengeance Score	Mean Vengeance per question
90	76	3.8
91	51	2.55
92	100	5
93	49	2.45
94	60	3
95	71	3.55
96	46	2.3
97	48	2.4
98	65	3.25
99	64	3.2
100	66	3.3
101	46	2.3
102	61	3.05
103	42	2.1
104	48	2.4
105	64	3.2
106	69	3.45
107	74	3.7
108	79	3.95
109	54	2.7
110	54	2.7
111	46	2.3
112	111	5.55
113	90	4.5
114	35	1.75
115	93	4.65
116	59	2.95
117	60	3
118	29	1.45
119	86	4.3
120	54	2.7
121	61	3.05
122	88	4.4
123	43	2.15
124	53	2.65
125	92	4.6
126	57	2.85
127	80	4
128	62	3.1
129	50	2.5
130	53	2.65
131	79	3.95
132	59	2.95

Participant Number	Total Vengeance Score	Mean Vengeance per question
133	46	2.3
134	81	4.05
135	53	2.65
136	100	5
137	77	3.85
138	65	3.25
139	89	4.45
140	79	3.95
141	38	1.9
142	29	1.45
143	67	3.35
144	50	2.5
145	63	3.15
146	52	2.6
147	43	2.15
148	79	3.95
149	106	5.3
150	36	1.8
151	80	4
161	69	3.45
162	104	5.2
163	71	3.55
164	56	2.8
166	75	3.75
167	50	2.5
168	61	3.05
187	77	3.85
188	42	2.1
189	77	3.85
190	50	2.5
191	58	2.9
192	60	3
193	72	3.6
194	28	1.4
195	47	2.35
196	56	2.8
197	55	2.75
198	59	2.95
199	64	3.2
200	50	2.5
201	62	3.1
202	31	1.55
203	81	4.05

Participant Number	Total Vengeance Score	Mean Vengeance per question
204	56	2.8
205	94	4.7
206	85	4.25
207	54	2.7
208	70	3.5
209	53	2.65
210	49	2.45
211	88	4.4
212	64	3.2
213	61	3.05
214	66	3.3
215	77	3.85
216	57	2.85
217	52	2.6
218	65	3.25
219	61	3.05
220	42	2.1
221	49	2.45
222	58	2.9
223	50	2.5
224	44	2.2
225	68	3.4
226	74	3.7
227	50	2.5
228	49	2.45
229	83	4.15
230	98	4.9
231	95	4.75
232	79	3.95
233	63	3.15
234	66	3.3
235	46	2.3
236	59	2.95
237	46	2.3
238	55	2.75
239	68	3.4
240	49	2.45
241	91	4.55
242	48	2.4
243	53	2.65
244	55	2.75
245	98	4.9
246	71	3.55

Participant Number	Total Vengeance Score	Mean Vengeance per question
247	69	3.45
248	106	5.3
249	33	1.65
250	85	4.25
251	68	3.4
252	103	5.15
253	66	3.3
254	50	2.5
255	52	2.6
256	55	2.75
257	73	3.65
258	70	3.5
259	29	1.45
260	55	2.75
261	50	2.5
262	81	4.05
263	80	4
264	51	2.55
265	71	3.55
266	75	3.75
267	28	1.4
268	76	3.8
269	57	2.85
270	69	3.45
271	61	3.05
272	60	3
273	45	2.25
274	70	3.5
275	81	4.05
276	62	3.1
277	76	3.8
278	61	3.05
279	67	3.35
280	85	4.25
281	98	4.9
282	79	3.95
283	118	5.9
284	46	2.3
285	104	5.2
286	51	2.55
287	52	2.6
288	32	1.6
289	41	2.05

Participant Number	Total Vengeance Score	Mean Vengeance per question
290	79	3.95
291	74	3.7
292	65	3.25
293	89	4.45
294	69	3.45
295	53	2.65
296	91	4.55
297	61	3.05
298	44	2.2
299	53	2.65
300	45	2.25
301	43	2.15
302	75	3.75
303	91	4.55
304	43	2.15
305	63	3.15
306	55	2.75
307	71	3.55
308	46	2.3
309	49	2.45
310	65	3.25
311	74	3.7
312	60	3
313	44	2.2
314	112	5.6
315	49	2.45
316	58	2.9
317	59	2.95
318	49	2.45
319	60	3
320	58	2.9
321	50	2.5
322	44	2.2
323	31	1.55
324	34	1.7
325	49	2.45
326	68	3.4
327	83	4.15
328	59	2.95
329	53	2.65
330	54	2.7
331	59	2.95
332	58	2.9

Participant	Total	Mean
Number	Vengeance	Vengeance
	Score	per question
333	52	2.6
334	50	2.5
335	72	3.6
336	33	1.65
337	66	3.3
338	61	3.05
339	49	2.45
340	69	3.45
341	79	3.95
342	47	2.35