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After the Crash: Citizens' Perceptions of
Connective-Tissue Injury Lawsuits

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Abstract

Even though automobile accident cases comprise a substantial portion of the state jury trial caseload, the humble automobile case has attracted minimal scholarly attention. However, many members of the public believe that whiplash, a connective-tissue or soft-tissue injury from auto accidents, is oftentimes fraudulent. To explore public perceptions, a national survey included a scenario experiment that varied types of minor injuries from an automobile accident. As predicted, the plaintiff who experienced a bone fracture was seen as more likely to be suffering a real injury than a plaintiff who reported suffering from a connective-tissue injury. The fracture was also viewed as more serious than the connective-tissue injury, despite the fact that the consequences for the plaintiff were described in identical terms. The role of personal experience and demographic and attitudinal characteristics in responses to these injuries was explored.

After the Crash: Citizens' Perceptions of Connective-Tissue Injury Lawsuits

Automobile accidents cause a substantial portion of personal injuries suffered by Americans (Federal Highway Administration, 2000; Hensler, 1998; Hensler et al., 1991; National Highway Traffic Safety Administration, 1999; Saks, 1992). Automobile accident claims also constitute a significant proportion of the personal injury bar's work, insurance defense work, and the state jury trial caseload (Daniels & Martin, 2001; Ostrom, Rottman, & Goerd, 1996; Saks, 1992). For example, researchers for the Civil Trial Court Network Project at the National Center for State Courts estimate that 50% of all tort filings and 42% of all tort jury trials in state courts of general jurisdiction are automobile accident cases (Ostrom et al., 1996).

Yet thus far, the lowly automobile case has attracted minimal scholarly attention. Very little research has been done on how juries or the public respond to issues and evidence in these types of trials. This article reports results from a research project designed to examine how the public perceives and evaluates minor claims resulting from automobile accidents. The project focuses particularly on "soft-tissue" or "connective-tissue" injury cases stemming from automobile accidents. Soft-tissue injuries include whiplash, back injuries, and other injuries to connective tissue, muscles, or skin. According to plaintiff attorneys, such cases have served as the bread and butter of the personal injury plaintiff's bar for some time (Daniels & Martin, 2001).

Most typically, such cases have been resolved by settlements between the injured parties and the insurance companies of the drivers who caused the accidents. However, in the recent past, several insurance companies have changed their settlement practices for

connective-tissue injury claims from car accidents, now offering lower settlements or forcing jury trials (Ballard, 1999). Insurance company spokespersons have advocated legislation to combat corruption and fraud believed to be frequent in accident claims related to soft-tissue injuries (Perry, 1992). Thus, the issue of how juries respond to soft-tissue injury lawsuits has become of great practical interest.

Examining lay responses to such cases also promises to be of theoretical interest to scholars in psychology and law. A plaintiff's broken bone can be demonstrated through X-rays, but soft-tissue injuries do not show up on common medical tests. The ambiguity of medical testing puts the onus of the case squarely on the credibility of the plaintiff. A connective-tissue injury is typically presented through a plaintiff's assertion of physical symptoms and problems that followed an accident. Therefore, perceptions of plaintiff credibility should play a strong role. In addition, an observer's prior experiences and preconceptions are likely to influence his or her judgments of the merits of the plaintiff's claim of injury. Attributions about personal responsibility and victim blame, experiences with the civil justice system and insurance companies, and case-relevant attitudes could play a substantial role in citizens' evaluations of typical soft-tissue injury claims.

Perceptions of Civil Plaintiffs

Past research suggests that plaintiffs bringing soft-tissue lawsuits face an uphill battle. Although Bornstein (1998) has discovered that mock jurors who are sympathetic to the plaintiff are more likely to find the defendant responsible for injuries in a civil lawsuit, civil jurors report their concerns that some plaintiffs exaggerate or even fabricate their injury claims (Hans, 2000). Experimental research (Feigenson, 2000; Feigenson,

Park, & Salovey, 1997; Vidmar, Lee, Cohen & Stewart, 1994; Zickafoose & Bornstein, 1999) confirms that jurors in certain cases show an anti-plaintiff bias, ascribing some responsibility even to plaintiffs who are legally blameless. Mock jury research on comparative negligence has found double discounting, where jurors combine liability judgments and compensatory damage awards in a way that increases the negative effect of a plaintiff's contributory fault (Bornstein, 1998; Feigenson et al., 1997; Greene, 1989; Horowitz & Bordens, 1990; MacCoun, 1993). If plaintiff credibility issues are heightened in connective-tissue and soft-tissue cases, the prior research suggests that these claims will be scrutinized closely.

Injury Severity

To date, scholarly work on the impact of injury severity has focused on theoretical questions about high severity injuries, in particular, whether sympathetic jurors adjust their fault judgments so that badly injured plaintiffs will receive compensation (references). Focusing instead on the low severity injury, different theoretical questions emerge about how minor injuries affect lay judgments. Do jurors consider minor automobile accident injuries too trivial to merit compensation? Alternatively, are they more likely to compensate because the impact on the defendant is modest? Finally, do jurors' attitudes and predispositions play a part in responses to minor automobile accident injuries?

Award amounts in auto accident trials indicate that many are low stakes cases, with a median award of \$29,000, compared to the median award of \$51,000 for all tort cases (Civil Trial Court Network, 2000). People may put connective-tissue and soft-tissue injuries in the category of "de minimus" injuries, seeing them as too minor to merit

compensation or civil litigation. Kalven & Zeisel (1966) identified the de minimus sentiment in jury responses to criminal law. "De minimus non curat praetor," or "the law does not concern itself with trifles" is a maxim that could apply to criminal, civil, and equity matters (see discussion in Kalven & Zeisel, 1966, pp. 258-260, footnotes 1-4). Kalven and Zeisel catalogued cases of judge-jury disagreement that appeared to be best explained by the minimal nature of the criminal offense or the trivial social harm done by the defendant. Kalven and Zeisel observed that de minimus cases tended to create disagreement primarily when there were doubts about the evidence as well, or when there were additional elements of self-defense or contributory fault of the victim.

Some of the social psychological research on the impact of outcome severity on attributions of responsibility suggests that, relative to high injury cases, low injury cases may be given short shrift. Some studies have found that more serious injuries increase attributed responsibility, although there are other studies that have failed to find the effect (compare Bornstein, 1998; Cather, Greene, & Durham, 1996; Shaver, 1970; and Thomas & Parpal, 1987; see Karlovac & Darley, 1988, for a review).

A countervailing tendency, though, is the jury's concern about the impact on a defendant of a high award. A study by Greene, Johns, and Bowman (1999) examined the impact of mild and severe injuries resulting from an automobile accident. Greene and her colleagues found that mock jurors who heard cases describing badly injured plaintiffs were initially more likely to rate the defendant as negligent (Greene et al., 1999), in line with other outcome severity research. However, when mock jurors were combined into mock juries, the opposite result obtained. Greene et al.'s mock juries were more likely to find the defendant negligent when the injuries were mild rather than severe. Greene et al.

noted jurors' conflicting desires to compensate a badly injured plaintiff yet to protect defendants from the drastic economic consequences of a large award in a severe injury case. The Greene et al. finding of greater defendant culpability in the mild as opposed to the severe injury condition hints that juries deciding a case with minimal injuries may be quite willing to conclude that a defendant is culpable when the consequences are minor.

Another question about low-severity injuries is whether the attitudinal and demographic variables that are associated with civil justice judgments in high-profile cases also determine assessments of low-stakes cases such as minimal automobile accident injuries. Attitudes toward civil plaintiffs, civil litigation, and tort reform are associated with case judgments in cases involving corporations (Hans, 2000a), product liability (Diamond, Saks, & Landsman, 1998), and wrongful death (Greene, Goodman, & Loftus, 1991), although the correlations are frequently modest.

However, the nature of minimal injury auto accident litigation could attenuate the role of attitudes toward civil litigation. First, automobile accidents are routine and ubiquitous; many people have experienced them. In many automobile injury cases, the plaintiff sues another individual rather than a corporate party, in contrast to the work of Hans (2000a) and Diamond et al. (1998) that pitted individuals against corporations. Compared to ordinary automobile accident lawsuits, lawsuits against corporations may stimulate symbolic responses that more powerfully evoke personally relevant attitudes. Second, a lawsuit over a minor injury and a potentially small payoff may not engage litigation attitudes or defensive attribution processes (Shaver, 1970) as much as a huge dollar lawsuit.

Perceptions of Whiplash Cases

A final issue to consider is the nature of soft-tissue and connective-tissue injuries, particularly whiplash. In focus groups studied by Hans and Vadino (2000; Hans, 2000b), participants expressed skepticism about whiplash claims. In addition, many were unfamiliar with the common terms -- including soft-tissue and connective-tissue -- that are used to communicate whiplash and other injuries in the courtroom. The ambiguity surrounding connective-tissue injury seemed to lead focus group members to downgrade the injuries. This research suggests that preconceptions about whiplash will be linked to case judgments.

Plaintiff Gender

Another issue explored in the present study is whether the injury claims of women and men plaintiffs are evaluated differently. Several lines of research suggest that women plaintiffs might have a slight edge. First, some medical research suggests that, due to structural differences in men and women's necks as well as headrest placement, women are more likely to suffer serious neck injuries in motor vehicle accidents (Schutt & Dolan, 1968; Whiplash Hits Women Harder, 1999). Men are more likely to commit crime than women, with gender differences in arrest rates largest for more serious and violent crimes such as homicide, assault, and robbery, and smallest for fraud, larceny, and forgery (Steffensmeier, 1995). Observers may draw on their beliefs and knowledge about the differential criminal propensities of women and men in estimating the likelihood of a fraudulent claim. In addition, women political candidates tend to be seen as more honest than men candidates (Alexander & Anderson, 1993; Kahn, 1992).

Study Design and Hypotheses

To examine how the nature of the injury, the gender of the plaintiff, and the attitudes of the observer affect perceptions of soft-tissue injury, participants in a national telephone survey evaluated different versions of a scenario describing a personal injury caused by an automobile accident. The scenario varied three dimensions: whether the injury was a connective-tissue injury or a bone fracture (Injury Type); whether the injury was to the neck or back (Injury Location); and the gender of the injured party (Plaintiff Gender). Given the documented tendency to see accident victims at fault, the scenario was purposefully constructed with a "good" plaintiff who was not at fault in the accident so that injury type and injury location effects could be studied. The term "whiplash" was avoided as well to explore whether there were any inherent differences between neck and back injuries independent of the aura of fraud that surrounds whiplash terminology.

We predicted that connective-tissue injuries and neck injuries would raise more doubts among observers, and would be rated as less severe than fractures and back injuries. Women's claims were expected to be more positively evaluated. Finally, experiences with and attitudes toward whiplash should be significantly related to scenario perceptions.

Method

Survey Methodology

A public opinion telephone survey was conducted from October 12-22, 1999. Respondents were selected using random digit dialing techniques to ensure that every household with a telephone in the United States had an equal probability of being included in the survey. Qualified respondents were 18 years of age and lived at the location reached using the randomly generated telephone number. Individuals within

households were also randomly selected using the last-birthday method of respondent selection, whereby the qualified individual who most recently celebrated a birthday was invited to participate. The gender split was controlled so that the final sample included half men and half women respondents. The refusal rate was 10.5%.

The average interview length was 23 minutes. The questionnaire included items tapping respondents' views of connective-tissue injuries, car accident claims, lawyers, insurance companies, and demographic and attitudinal factors. In addition, a scenario experiment was included in the poll.

Scenario Experiment Design

Each respondent received a randomly selected scenario of a personal injury caused by an automobile accident. The scenario varied three dimensions: whether the injury was a connective-tissue injury or a bone fracture (Injury Type); whether the injury was to the neck or back (Injury Location); and the gender of the injured party (Plaintiff Gender). One version (No Fracture, Neck Injury, Female Plaintiff) read as follows:

Jane Harris, a married woman in her mid-forties, works as a manager at a local bank. Two years ago, while she was waiting in her car at a red light, she was rear-ended by another automobile. Her car had about \$500 worth of damage to the rear end. Jane Harris had x-rays taken of her neck shortly after the accident because she reported being in pain. The x-rays showed no injury to the bones in her neck, but her doctor says she has a muscle sprain.

Since the accident, Jane Harris has continued to complain about having neck pain. She has visited her doctor six times for treatment of the

pain. She has gone to a chiropractor and has been taking pain medication on and off. She has had difficulty sitting at her desk for long periods of time, bending to hug her children, and no longer engages in her favorite hobbies of bowling and golf, all because of the pain in her neck.

She has received an offer of \$500 from the other driver which would pay for the damage to her car, but has not received any offer for her medical expenses, lost wages from missing work, and to compensate her for changes to her lifestyle caused by her now chronic neck pain.

Therefore, she is filing a lawsuit.

The other scenarios were described identically except that in the Fracture conditions, the x-rays “showed a slight fracture in one of the bones in her neck;” a back injury was substituted for a neck injury in the Back Injury conditions; and John instead of Jane Harris was the plaintiff in the Male Gender conditions. Respondents answered questions tapping their reactions to the scenario and the lawsuit, including their perceptions of injury seriousness, the reasonableness of the other driver's offer and the lawsuit, and whether the plaintiff should receive money damages.

Sample Characteristics

After controlling for gender, the final sample included 300 men and 300 women. The majority of the sample described their racial or ethnic background as white (85%); with 7% African American; 5% Hispanic; 2% Native American; and 1% Asian respondents. The racial and ethnic distribution is generally comparable to national statistics except that African Americans were underrepresented compared to other racial and ethnic groups. The annual income of the sample was broadly distributed with 16%

reporting their household income was less than \$20,000; 24% with income between \$20,000 and \$35,000; 24% with income between \$35,000 and \$50,000; 22% with income between \$50,000 and \$75,000, and 15% saying their annual household income was over \$75,000. The respondents ranged in age from 18 to 91 years of age, with a broad distribution of ages. About 10% of the sample was under 24 years of age; 17% was between 25 and 34 years of age, another 24% was between 35 and 44 years old; 22% was between 45 and 54 years of age; and 27% was 55 or older. The sample was relatively well-educated. Six percent never completed high school, and 29% were high school graduates. A third (34%) reported some college or vocational school, while 30% had a college degree or more advanced education.

Regarding the respondents' political views, 21% identified themselves as liberal, 44% described themselves as politically moderate, and 33% identified themselves as conservative. Of the survey respondents who indicated their political preference, 34% stated they were Republicans; 30% were Democrats; and 36% said they were independents. Forty-five percent indicated that they were born-again Christians.

Analysis

In addition to a series of questions tapping responses to the scenario, responses to scenario questions were combined into a global Scenario Judgments scale (see Results section for details).

Other questionnaire items examined potential attitudinal predictors. Views about insurance were assessed by items asking about trust and satisfaction in one's own insurance company, trust in insurance companies in general, and specific questions about insurance company behavior with respect to claims payment and denial. The Insurance

Skepticism scale was composed of nine variables; $M = 19.83$, $SD = 3.55$, $\alpha = .73$. Higher numbers represented more negative views of insurance companies.

After exploratory analysis, eight items were combined to form a Civil Litigation Views scale ($M = 18.26$, $SD = 3.87$, $\alpha = .53$). The items included some items from Hans and Lofquist's (1994) Litigation Crisis scale and other items about tort reform. The items were: "There are far too many frivolous lawsuits today;" "Most people who sue others are just trying to blame someone else for their problems;" "Most people who sue others in court have legitimate grievances;" and a question asking to what extent respondents thought that lawsuits which result from automobile accidents are legitimate versus frivolous. The scale also included responses of support or opposition to four specific tort reforms, "making it harder to sue any person, business, or organization that injures another person either through carelessness or intentionally," "placing a limit on how much an attorney who represents an injured person in a lawsuit can charge for his or her services," "placing a limit on how much a judge or jury can award in a lawsuit resulting from a person being injured," and support or opposition to no-fault automobile insurance. Responses were coded so that higher numbers indicated more positive views of civil litigation and more opposition to tort reform.

There were nine items that assessed beliefs about whiplash and its seriousness. They included severity ratings (on a one-to-ten scale) of whiplash injuries, muscle injuries, sprains, soft-tissue injuries, and connective-tissue injuries. Two other questions also dealt with whiplash: "Typically, do you think that people who claim to have whiplash are almost always injured, usually injured, sometimes injured, not often injured, or never injured at all?" and "Do you agree or disagree that whiplash injuries are not

serious enough to merit a lawsuit?" Two items covered other aspects of connective-tissue injuries in automobile accidents: "If eggs can be broken without there being any sign of damage to an egg carton, it makes perfect sense that people in automobiles can be injured without there being any visible sign of damage to the car" and "Sprains often take longer to heal than broken bones." Responses to these items were recoded as appropriate and combined into a scale labeled Whiplash Beliefs ($M = 37.03$, $SD = 9.45$, $\alpha = .74$). Higher numbers indicated more credence given to whiplash and other connective-tissue injuries.

A variable entitled Political Efficacy was formed by combining responses to two items used in prior research on political efficacy, or the extent to which people think political change is possible through the efforts of its citizens (Acock & Clark, 1990; Campbell, Gurin & Miller, 1954; Hans & Lofquist, 1994). The items were: "People like me don't have any say about what the government does" and "I don't think public officials care much about people like me." The M for Political Efficacy was 4.39, with SD of 1.92, and α of .64. Higher numbers indicated a greater sense of Political Efficacy.

Results

Impact of Independent Variables on Scenario Judgments

In general, the injury depicted in the scenario was perceived as legitimate and appropriate grounds for a lawsuit. Multivariate analysis of variance confirms that the type of injury – fracture versus connective tissue -- has a systematic effect on perceptions of the severity of the plaintiff's injury, the reasonableness of the offer and lawsuit, and the appropriateness of money damages (see Table 1). When asked whether the plaintiff Harris had suffered a real injury, respondents hearing the scenario describing "a slight fracture to one of the bones" are more likely than respondents who hear the scenario

describing a connective-tissue injury to believe that it is real. The fracture is rated as more serious than the connective-tissue injury, even though the plaintiff's pain, the doctor and chiropractor visits, and the impact on work and lifestyle are described in identical terms.

The judgments of the reasonableness of a lawsuit and the appropriateness of money damages follow these assessments of the reality and severity of the plaintiff's injury. It is considered less reasonable for the other driver to offer to pay only for the car damages when the plaintiff is described as having a bone fracture rather than a connective-tissue injury, and more reasonable for the bone fracture plaintiff to file a lawsuit. Compared to the soft-tissue injury plaintiff, the bone fracture plaintiff's expenses for medical bills, chiropractor expenses, lost wages, pain and suffering, and lifestyle changes are seen as more legitimate grounds for compensation. There are no differences between injury type conditions in judgments of whether Harris should receive payment for the damage to the car.

The multivariate analysis also shows a statistically significant overall effect of whether the plaintiff suffers a neck or back injury, as seen in Table 1. In contrast to the impact of the fracture versus connective tissue injury, however, the neck and back injury effect is statistically significant for just one individual item, the appropriateness of money damages for lifestyle changes. Plaintiffs with back injuries are seen as more deserving of payment for lifestyle changes than plaintiffs with neck injuries. The plaintiff's gender has no overall impact on scenario judgments.

Demographic Correlates of Scenario Judgments

After recoding so that lower numbers indicated pro-plaintiff responses on all variables, the eleven items measuring reactions to the scenario were combined into a global Scenario Judgments scale ($M = 18.28$, $SD = 6.82$, $\alpha = .90$). The potential relationships between scenario judgments and attitudinal and demographic factors were assessed through several statistical analyses using the global Scenario Judgments scale as the dependent variable and demographic and other variables as independent or predictor variables. For demographic variables, individual analyses reveal that Scenario Judgments are related to respondents' income and age. Lower-income respondents are more favorable to the plaintiff's case compared to respondents reporting higher household income ($F(4, 438) = 3.14$, $p = .015$). Older respondents are slightly but significantly more favorable to plaintiffs ($r = -.11$, $p = .019$). Scenario judgments are unrelated to the respondents' gender, racial and ethnic background (White v. Nonwhite), educational level, and whether or not they describe themselves as born-again Christians.

Impact of Experience with Motor Vehicles and Motor Vehicle Accidents

Does being in a car accident have an impact on how one views injuries and civil lawsuits involving motor vehicle accidents? To answer this question about the role of direct experience, respondents were asked about their use of motor vehicles, whether they had had an accident, and whether they or others were injured in the accident. Most respondents (85%) report daily operation of a motor vehicle. Fully 72% of the total sample report that they have been in a motor vehicle accident. Half of these accidents included personal injury. Forty-two percent of those reporting that they had motor vehicle accidents said that they themselves were injured in the accidents.

Whether or not respondents have had a motor vehicle accident is not significantly related to scenario judgments ($F < 1$). The frequency of motor vehicle use is also unrelated ($F < 1$). However, prior experience with auto accident injury does appear to play some role. Those respondents who say that they suffered personal injury in their motor vehicle accident are more positive toward the plaintiff, compared to all other respondents ($M = 17.19$ for injured respondents; $M = 18.76$ for all other respondents; $F(1, 471) = 5.45, p = .02$).

Finally, respondents who report that they or another close friend or family member have experienced what they thought was whiplash are significantly more positive toward the plaintiff in their Scenario Judgments (M for Whiplash Experience = 17.56, M for No Whiplash Experience = 18.90; $F(1, 469) = 4.52, p = .03$). Experience with whiplash also influences Whiplash Beliefs in a predictable way, with those who report whiplash experience seeing it as more serious and credible (M for Whiplash Experience = 38.06; M for No Whiplash Experience = 36.13; $F(1, 390) = 4.09, p = .04$).

Experience with the Justice System

Of the 72 (12%) respondents in the survey who had been personally involved in a lawsuit, the majority (39, or 59% of the total number of those involved in a lawsuit) have been plaintiffs. Seventeen (26%) have been defendants, and 10 (15%) have been both plaintiff and defendant in lawsuits. Direct experience as a plaintiff versus defendant in civil litigation has an impact on Scenario Judgments. Respondents who say they have been plaintiffs in civil litigation are markedly more pro-plaintiff in their Scenario Judgments ($M = 15.53$) than respondents who have been defendants ($M = 22.58$) or

respondents who have been both plaintiff and defendant ($M = 18.11$; $F(2, 52) = 5.77$, $p = .006$).

Twenty-six percent of the respondents have served on a jury, about half in criminal and half in civil trials. Jury service is not related to respondents' global views of the auto accident scenario.

Attitudinal Correlates of Scenario Judgments

Table 2 shows a correlation matrix depicting the interrelationships among Scenario Judgments and other attitudes. The strongest relationship with Scenario Judgments is the factor of Whiplash Beliefs. Those who rate whiplash as a serious and legitimate injury are more pro-plaintiff in their judgments of the scenario. The correlation is strongest in the Connective-Tissue injury scenarios ($r = -.45$, $p = .0001$) but what is intriguing is that it is also statistically significant in the Fracture scenarios ($r = -.29$, $p = .0001$). Another statistically significant correlate is the Civil Litigation Views scale. Confirming prior research, those who are more positive about the civil litigation system and least in favor of tort reform respond in more pro-plaintiff ways in the automobile accident scenario. Political Efficacy is related, but in an unexpected direction. In prior research (Hans & Lofquist, 1994) civil jurors who scored high in political efficacy were also more supportive of the civil litigation system. That relationship is replicated in this data set. Nevertheless, those who feel politically efficacious are more negative toward the automobile injury plaintiff. Views about insurance are only marginally related to Scenario Judgments. Respondents with greater skepticism about insurance companies are slightly more supportive of the personal injury plaintiff in the scenario ($p = .059$).

Political conservatism and political party identification are not related to Scenario Judgments. Nonetheless, political party identification is related to broader civil justice attitudes. Democrats ($\underline{M} = 19.13$) are more positive about the civil litigation system and less likely to endorse tort reform than Republicans ($\underline{M} = 17.46$; $\underline{F}(2, 329) = 4.94$, $\underline{p} = .008$). Responses of independents fall between the other two groups and do not differ from either in post-hoc tests.

A multiple regression analysis with Scenario Judgments as the dependent measure and demographic, experience, and attitudinal items as simultaneously entered predictor variables confirms the relationships of respondents' income and Whiplash Beliefs. In addition, the respondent's frequency of motor vehicle use becomes a statistically significant predictor in the equation. See Table 3. The factor of Whiplash Beliefs bears the strongest relationship to Scenario Judgments. Recall that high scores on the Scenario Judgments scale indicate more negative assessments of the plaintiff's case, while high scores on Whiplash Beliefs represent strong beliefs in the seriousness and credibility of whiplash. The significant negative relationship means that respondents who are most positive about whiplash in general also evaluate the plaintiff's case most favorably. In addition, higher income respondents and people who report lower motor vehicle usage are more negative about the plaintiff's case.

To explore how these variables might become more or less relevant depending on the type of injury, separate linear regressions were run for the Connective-Tissue case respondents and the Fracture respondents, using the same variables as in the regression analysis with the entire sample. In the interests of space, the full regression models are not presented. Whiplash Beliefs is a significant predictor of scenario judgments in both

sets of conditions (Beta's were $-.43$ and $-.33$ for the Connective-Tissue and Fracture conditions respectively, both p 's $< .02$). The Civil Litigation Views of respondents significantly predict their scenario judgments in the Fracture scenario ($B = -.27$, $p = .05$) but not in the Connective-Tissue scenario ($B = .09$, ns).

Discussion

When presented with a straightforward scenario in which one party is rear-ended and claims a minor personal injury, observers are inclined to grant credence to the injury. Most see a lawsuit as justified if the culpable party refuses to compensate the injured party for medical expenses and lost time at work. However, in line with expectations, compared to a broken bone with identical consequences, a connective-tissue injury is seen as less likely to be a real injury, less severe, and less deserving of compensation through litigation. This is so even though the injured person reports the same degree of pain, medical treatment, and impact on family, work, and personal activities.

This experiment shows two ways in which observers prefer to compensate for concrete and observable harms. First, as just described, the lawsuit is seen as more justified for those claiming a broken bone than a connective-tissue injury. Second, agreement about the appropriateness of compensation is strongest for the most tangible consequences of injury such as medical bills and lost wages, with 94% and 84% of the respondents overall supporting compensation for these items. Claims for pain and suffering and lifestyle changes engender more resistance. Seventy-two percent of the respondents believe that the injured person should receive some payment for pain and suffering, and just half think that the lifestyle changes necessitated by the injury warrant compensation.

The scenario was purposefully constructed to exclude any degree of fault on the part of the plaintiff. The plaintiff was depicted as a mainstream member of society, married and working as a bank manager. The initial complaint was made shortly after the injury, and was followed by a series of doctor visits and chiropractor treatments. Even so, 8% of those hearing about the bone fracture documented through an X-ray thought it wasn't a real injury, and 19% of those hearing about the connective-tissue injury confirmed by a doctor concluded that it wasn't a real injury. This could reflect the minor nature of the injuries, and that *di minimus* injuries are not categorized in some people's minds as valid injuries or grounds for a lawsuit (Kalven & Zeisel, 1966). It could also reflect some innate skepticism about even minor claims brought in the civil justice system by plaintiffs saying they are injured (Hans & Lofquist, 1994; Hans & Vadino, 2000). The mock jury research finding that legally blameless plaintiffs are nevertheless accorded some degree of fault (Feigenson et al., 1997) comes to mind as another example in which relatively clear circumstances may be interpreted in line with preexisting views. Of course, in actual litigation, there may be considerably more dispute over factual matters such as plaintiff fault and degree of seriousness. It would be interesting in future research to vary the plaintiff's credibility and contributory fault. The results here suggest that these factors would have greater impact in the connective-tissue scenario which is seen as more ambiguous by respondents.

The problematic words of whiplash, soft tissue, and connective tissue were not used in describing the injury within the scenario to minimize the fraud connotations of whiplash and the comprehension difficulties presented by soft and connective tissue terminology. Most observers granted legitimacy to this specific plaintiff's claim even in

the connective-tissue injury scenarios, despite the fact that the public's response to general attitudinal questions about whiplash shows some skepticism. These beliefs about whiplash, although they did not lead to wholesale rejection of the plaintiff's claim, are nevertheless important. The strongest determinant of responses to the scenario was the factor of Whiplash Beliefs. The factor combined seriousness ratings of various connective-tissue injuries as well as items pertaining to the validity of connective-tissue injury claims.

Looking at the determinants of this key set of whiplash beliefs, both personal experience and other attitudes play a role. Direct experiences with whiplash led to more supportive views about such injuries. Adding to these direct experiences, general views about civil litigation also correlated with the scale of Whiplash Beliefs, extending prior research about the effects of attitudes toward civil justice (Diamond et al., 1998; Greene et al., 1991; Hans, 2000a). And while the relationship between Whiplash Beliefs and scenario judgments was strongest when the plaintiff claimed a soft-tissue injury, the relationship remained statistically significant when the plaintiff asserted a bone fracture injury. The overall pattern suggests the complex interplay of personal experience and preexisting views that together shape responses to civil plaintiffs who bring minor claims in the civil justice system.

The impact of direct experience can also be seen in the roles that motor vehicle usage and accident experience played. After controlling for other demographic and attitudinal factors, those who reported more frequent driving gave greater credence to the scenario plaintiff's case. Having had a motor vehicle accident by itself did not significantly impact scenario judgments. However, at least in the correlational analyses,

respondents who said that they or others had been injured in motor vehicle accidents were more positive towards the plaintiff when evaluating the scenario.

Experience with the justice system in civil litigation again showed a more pro-plaintiff view for those who had brought civil claims themselves. Of course, many more people are injured than bring claims in the legal system. Hensler et al. (1991) examined the liability-claiming patterns of those injured in all types of incidents. Their results showed that claiming was limited, with only 19% of the total number of injured respondents considering claiming and 2% eventually ending in a lawsuit. In the Hensler et al. study, most respondents injured in automobile accidents outside of a work context said that others were at fault for their accidents. One might speculate that having been injured in a motor vehicle accident in which someone else was to blame and refraining from a legal claim might lead respondents to take a harsher approach to judging a plaintiff who asserts a minor claim. Hans (2000a), for example, found that some civil jurors criticized plaintiffs who brought claims when the jurors themselves had not done so for similar injuries. However, in the current study, that did not happen; instead, similarity to the plaintiff in driving, motor vehicle injury, or bringing a legal claim all operated to increase support for the plaintiff. The significant presence of these experience-based factors in different analyses suggests that one's encounters with driving, accidents, and lawsuit claims contribute to perceptions of accidents. Some experiences lead to more pro-plaintiff or pro-whiplash attitudes, which in turn lead to greater credence given to the automobile accident plaintiff, while others have a direct effect on scenario judgments. The impact of these experiential factors on responses to lawsuits warrants further investigation. In particular, is their impact limited to motor vehicle litigation, or

do they also function to promote greater plaintiff orientation in more serious cases? In addition, does experiential similarity in minor injury cases operate in the same manner as sympathy (see, e.g., Bornstein, 1998) in more serious cases?

There was just one plaintiff gender effect, and it was found only in a univariate analysis. Even though people are somewhat more likely to see a woman's claimed injury as "real," they do not ascribe greater seriousness to women's injuries, nor do they believe that they are more deserving of compensation. If a woman's injuries are more likely to be perceived as real, why doesn't that translate into a broader pattern of greater compensation for the woman plaintiff in this scenario study? All other factors including the plaintiff's occupation were held constant in the scenario, and the gender effect was statistically significant but small. In the real world tort system, substantial distinctions between men and women plaintiffs create observable differences in tort case outcomes. For example, Finley (1997, 2000) analyzed jury verdict reporters and found that women's economic damage recoveries are substantially less than men's, while non-economic damages are higher for women than for men. Further, the proportion of the total award that constitutes non-economic damages is higher for women compared to men. The preference our respondents showed for compensating tangible results of injuries such as lost wages and medical bills over non-economic damages such as lifestyle changes and pain and suffering could more than compensate for the slight trust advantage found here for the woman plaintiff.

The respondent's income effect merits discussion. Lower income respondents are more positive toward the plaintiff claiming a minor injury from a motor vehicle accident, and it remains a statistically significant factor in scenario judgments even when other

attitudinal and demographic factors are taken into account in the linear regression analysis. One could speculate that the income effect reflects the disproportionate impact of a modest injury on people at different income levels. A number of trips to the doctor and the chiropractor, some lost work time, and the expense of pain medication would pose a modest financial burden on people at higher income levels but would likely present a more substantial economic hardship for those at lower income levels. So, minor injuries that could more easily be "lumped" if one is relatively well-off, indeed, an experience that would be labeled a *di minimus* injury, may be more burdensome in both perception and reality for lower-income people. An open question is whether the income effect would be as pronounced in a case with high severity injuries that would have very serious consequences for people at different income levels.

In conclusion, this study of public reactions to minor injuries stemming from automobile accidents revealed the joint effects of experience and attitudes in responses to injury claims. Like earlier experimental investigations by Bornstein, Greene et al. and Feigenson that varied injury severity, future research might usefully investigate the impact and interplay of these factors with minor and severe motor vehicle injuries.

The current project illustrates that connective-tissue injury suffers a comparative disadvantage vis-à-vis a broken bone despite the description of a similar impact on a plaintiff's life. The possibility of fraud, the less concrete nature of the injury, and perhaps even the unfamiliar language used to describe the injury all appear to contribute to lay perceptions of injury seriousness.

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Table 1

Impact of Injury Type on Automobile Accident Injury Scenario Judgments

Question	Soft tissue	Fracture	<u>F</u>	<u>p</u>
Did Harris suffer real injury?	1.79	1.44	24.90	.001
How serious is injury?	2.01	1.81	10.53	.001
Reasonable for driver to pay only for car damage?	3.13	3.53	23.32	.001
Reasonable to file lawsuit?	1.71	1.45	13.05	.001
Reasonable to file lawsuit after insurance company refused to pay for more than car damage?	1.56	1.35	9.59	.002
Harris should receive payment for the car.	1.08	1.09	<1	<u>ns</u>
Harris should receive payment for medical bills.	1.41	1.17	17.93	.001
Harris should receive payment for chiropractor.	1.82	1.58	8.29	.004
Harris should receive payment for lost wages.	1.85	1.44	29.30	.001
Harris should receive payment for pain and suffering.	2.17	1.93	7.59	.006
Harris should receive payment for lifestyle changes.	2.68	2.38	9.97	.002
Scenario Judgments scale (low = pro-plaintiff)	19.79	16.75	24.58	.001

Note. The lower the number, the greater the agreement with the statement (1 = Strongly Agree; 2 = Somewhat Agree; 3 = Somewhat Disagree; 4 = Strongly Disagree). For the injury seriousness question, lower numbers correspond to more serious injury.

Table 2

Correlations between Scenario Judgments and Other Attitudes

Scale	1	2	3	4	5
1. Scenario Judgments	--	-.38**	-.17**	-.11	.11*
2. Whiplash Beliefs		--	.16**	.09	-.06
3. Civil Litigation Views			--	.17**	.16**
4. Insurance Skepticism				--	-.25**
5. Political Efficacy					--

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

Table 3

Summary of Linear Regression Analysis: Factors Influencing Scenario Judgments

Variable	<u>B</u>	<u>SE B</u>	B ϵ α
Gender	-1.26	1.17	-.09
White	-.74	1.58	-.04
Age	-2.62	.04	-.06
Education	-.22	.62	-.03
Income	1.15	.50	.20*
Political Conservatism	.50	.30	.14
Born Again Christian	.62	1.12	.04
Motor Vehicle Use	1.49	.72	.17*
Accident Experience	-1.41	1.35	-.09
Whiplash Experience	.16	1.16	.01
Lawsuit Experience	-.46	1.51	-.02
Jury Service	1.22	1.51	.07
Political Efficacy	.13	.28	.04
Insurance Skepticism	6.34	.17	.03
Whiplash Beliefs	-.28	.06	-.40**
Civil Litigation Views	-.13	.15	-.07

Note. $F(16, 159) = 2.71, p = .001; R^2$ for regression model = .23.

** $p < .05$; *** $p < .01$.