PAIN AND SUFFERING AWARDS FOR CONSUMER PRODUCT ACCIDENTS: EFFECTS OF SUGGESTING DAY-RATE INFORMATION

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Studies of juror decisions regarding pain and suffering awards in product liability litigation tend to show substantial variability across participants. A possible explanation is that jurors do not have a useful metric for assessing pain and suffering. A study was conducted to explore effects of providing day-rate suggestions on such decisions. Day rate refers to giving information about remaining life expectancy in days and suggesting a value to assign per day. Four scenarios describing product-related accidents were presented to 134 participants. Seven day-rate conditions were employed for each scenario: a no day-rate control; five day rates consisting of $1, $50, $100, $200 and $1000; and a multiple day rate condition that described four alternative rates. Results showed a significant day-rate effect, with higher rates resulting in higher awards. Variability of awards was greater in the no day-rate condition than in day-rate conditions with similar award levels. This finding is consistent with the notion that jurors are susceptible to monetary award suggestions. Implications for "biases" in pain and suffering award decisions are discussed.

INTRODUCTION

In personal injury litigation jurors are typically given information about the value of economic damages such as medical expenses and lost wages. Such information is provided by economist experts and is intended to assist jurors in assessing damages and in making award decisions. However, juries also are often called upon to make decisions regarding non-economic damages and awards, usually referred to as "pain and suffering." These damages include bodily harm (pain, disfigurement and disability), emotional distress (fear, anxiety, depression and embarrassment), and loss of enjoyment of life (limitations on lifestyle). Economists do not have a generally accepted basis for assessing and assigning values to such damages (Brookshire and Slesnick, 1999), and juries are "on their own" to make such assessments and award decisions.

Only a limited amount of research has been reported on the topic of jury decisions regarding pain and suffering awards. A review of work on this topic was reported by Wissler, Evans, Hart, Morry and Saks (1997). It seems likely that such decisions involve a variety of considerations and factors. One such factor is the extent of the plaintiff's injury. Wissler et al. (1997) reported that greater injury severity led to higher awards. However, in another study Laughery, Laughery, Meingast, Bean and Wogalter, (2000a) reported that two levels of injury severity did not have a statistically significant effect on awards, although the means were in the expected direction. One possible explanation for this failure to show an

injury severity effect may be that the two injury levels in the study were both fairly severe.

Another factor that may be important is the liability or degree of fault of the plaintiff. Laughery et al. (2000a) reported lower allocations for pain and suffering when the plaintiff was assigned greater liability/fault. However, Wissler et al. (1997) reported that degree of fault had little influence on pain and suffering awards.

One of the potential issues or aspects of jury decision making in arriving at pain and suffering awards is that jurors do not have a good or useful way to measure or assess such non-economic damages. As noted, economists do not have a generally accepted basis for providing such guidance. These explanations are consistent with findings showing substantial variability in awards allocated by participants in previous studies (Laughery et al., 2000a; Laughery, Laughery, Meingast, Bean and Wogalter, 2000b). It seems reasonable to hypothesize that in the absence of a useful metric, jurors might be influenced by specific suggestions or by suggested guidelines. Marti and Wissler (2000) reported amounts of awards suggested by plaintiff's and/or defendant's attorneys affected the award allocations. One interesting outcome of the study, however, was that if the plaintiff's attorney requested an extremely high award, it backfired; that is; it had the effect of reducing the amount awarded.

This article presents the results of a study that explored the effects of another form of guidance or suggestions on pain and suffering decisions; namely, day rates. The day-rate concept refers to the situation where a jury is given information about the remaining life expectancy of an individual in days and a suggested value to assign per day. For example, suppose an accident victim is a quadriplegic with a remaining life expectancy of 8935 days. Jurors could then be given a suggestion of an amount worth each day's pain and suffering. Further suppose a day rate of $100.00 is suggested; the award would be $893,500. The hypothesis is that as higher day rate values are suggested, juror's award amounts will be greater. There may, however, be a limit beyond which a higher suggested day rate will either have no influence or lead to a lower award.

METHOD

The methodology consisted of presenting four accident-injury scenarios to participants. Each scenario was described as representing a product liability civil litigation case in which the participant was to consider him/herself a member of the jury. The scenarios described the accident, the injuries, other relevant information, the results of the liability decision, and the amount of economic damages awarded. The final portion of each scenario was information about the life expectancy of the plaintiff in days, a suggested day rate, and a total award value based on the day rate and life expectancy. After reviewing each scenario, the participant decided on an award for pain and suffering. No constraints, small or large, were placed on the amount of the awards.

Participants

Participants were obtained from two universities. The first group consisted of 66 undergraduate students enrolled in an introductory psychology course at Rice University. Participants in the second group were 68 undergraduate students enrolled in an introductory psychology course at North Carolina State University.

Design

There were two variables in the experiment. The first was the four scenarios, which was a within-participants variable; that is, each participant received all four scenarios. The second variable was the suggested day rate, which was manipulated between participants. There were seven levels of this condition, including a control. In the control condition no life expectancy or day rate information was provided. In five day-rate conditions the separate amounts suggested were $1, $50, $100, $200 and $1000. These different day rates, of course, resulted in different suggested total award values. The seventh condition consisted of multiple rate suggestions presented in table form. The rates in the table were $1, $50, $100 and $200. The total award values associated with the four rates were also presented in the table. This latter condition strongly suggested to the

participant to think in terms of a day rate and offered several alternative rates to consider.

Materials

The first scenario described an automobile accident in which the driver's injuries resulted in permanent quadriplegia. The second scenario described a work place accident in which an employee received severe chemical burns as a result of chemicals erupting from a tank. The third scenario described a work place accident in which an employee suffered brain damage. The fourth scenario was an automobile accident in which a 13-month old girl was fatally injured by an airbag while seated in a child restraint seat in the right front passenger seat of the vehicle. The pain and suffering in this scenario took the form of the mother's loss of a child. The life expectancies expressed in days for the victims in the four scenarios were 14,381, 10,695, 15,075 and 13,733 respectively. All aspects of the scenarios were kept constant across conditions except for the day-rate manipulation and its corresponding total award value.

Procedure

Each participant was provided a packet consisting of a number of sheets. The first sheet contained instructions for the study, and was followed by the four scenario descriptions. The last sheet requested gender and age information.

RESULTS

The mean pain and suffering award and the standard deviation for each of the day-rate conditions and each of the scenarios are presented in Table 1. The mean awards are also shown in Figure 1. A mixed factorial ANOVA was carried out with scenario as a four-level within-participants variable and day rate as a seven-level between-participants variable. The scenario variable was statistically significant, $F(3,381) = 15.68, p < .001$. Generally, awards were highest in the third scenario involving permanent brain damage and lowest in the second scenario involving chemical burns. The day-rate variable

also had a statistically significant effect on awards, $F(6,127) = 47.12, p < .001$. From Table 1 and Figure 1 it is clear that as the suggested day rate increased, the magnitude of the awards increased.

Comparisons of the awards in the different day-rate conditions revealed the following: awards for the control, $1, $50, $100 and multiple day-rate conditions did not significantly differ; awards for the $200 day-rate were greater than for the control, $1, $50 and multiple day-rate conditions; and awards for the $1000 day-rate were significantly greater than for all other day-rate conditions.

The scenario x day-rate interaction was statistically significant, $F = 3.12, p < .001$. From Figure 1 it can be seen that the magnitude of the day-rate effect was greatest for scenario 3 and least for scenario 2.

An analysis was carried out comparing the variances in the different day-rate conditions. The measure employed was the absolute value of the difference between each participant's specific allocations and the mean allocation for that experimental condition. The day-rate variable was statistically significant, $F(6,127) = 12.45, p < .001$. The standard deviation values shown in the right (all cases) column of Table 1 indicate that as the day rate increased the variances increased. Of particular interest was the comparison of the variance in the control condition with the variances in the $1 and multiple day-rate conditions, where the award allocations were on the same order of magnitude. The variance was significantly greater in the control condition than in these two day-rate conditions.

DISCUSSION

As can be seen from Table 1 or Figure 1, the awards allocated were fairly substantial. The lowest mean was almost one-half million dollars and the highest nearly 13 million. Most likely, the magnitude of the awards was at least in part influenced by the facts of the scenarios. In general, the scenarios were "plaintiff oriented"; that is, a high portion of liability was assigned to the product manufacturer and significant economic damages were awarded. This "bias" was intentional. The

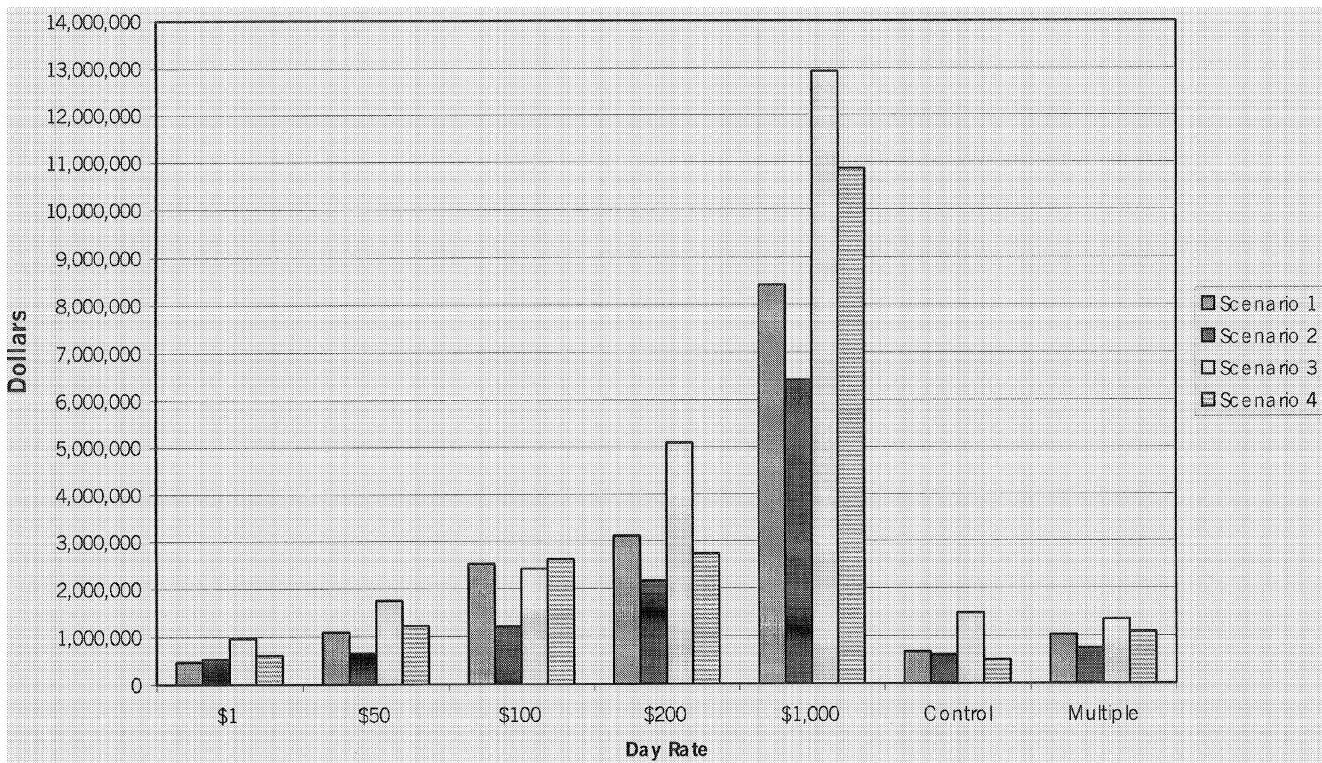TABLE 1: Means and Standard Deviations of Awards by Day Rate for Each Scenario

Condition		Scenario 1	Scenario 2	Scenario 3	Scenario 4	All Cases
Control	Mean	667,738	611,262	1,485,238	500,286	816,131
	Std. Dev.	749,157	1,095,843	1,857,170	451,316	822,571
$1	Mean	481,959	537,890	970,199	616,436	651,621
	Std. Dev.	773,985	663,970	942,844	839,577	473,722
$50	Mean	1,098,513	658,422	1,751,563	1,228,572	1,184,267
	Std. Dev.	668,822	423,450	1,748,200	1,115,610	741,142
$100	Mean	2,519,612	1,216,677	2,416,618	2,623,250	2,194,039
	Std. Dev.	3,107,334	470,836	1,285,000	1,537,146	910,478
$200	Mean	3,109,638	2,157,015	5,093,529	2,728,659	3,272,210
	Std. Dev.	1,019,618	651,200	4,318,405	2,418,233	1,534,764
$1,000	Mean	8,427,177	6,425,735	12,928,161	10,870,500	9,662,893
	Std. Dev.	4,469,215	3,739,908	7,284,351	10,313,356	5,090,487
Multi	Mean	1,029,703	745,578	1,344,281	1,083,998	1,050,890
	Std. Dev.	370,952	714,571	964,232	833,216	478,233

purpose of the study was not to explore factors that might influence liability decisions, but rather the effects of presenting a pain and suffering metric suggestion on that type of award.

The hypothesis that higher day-rate suggestions would lead to greater pain and suffering awards was supported by the results. Even in those day-rate conditions where the award differences did not

reach statistical significance, the means were in the expected direction. This outcome, along with the effects of suggestions by plaintiff and defense attorneys reported by Marti and Wissler (2000), is consistent with the notion that jurors do not have a good metric for assessing pain and suffering and are receptive to such suggestions. The greater variance in the control condition, where the

FIGURE 1: Mean Awards By Day Rate

suggestion was not provided, compared to the $1 and multiple conditions is also consistent with this notion.

It is of interest to note that the awards in the control condition, where no day rate was suggested, and in the multiple condition, where several rates were suggested, were similar in magnitude to the awards in the lower ($1 and $50) day-rate conditions. Why did participants in the multiple day-rate condition allocate awards on the lower end of the alternatives presented? A possible explanation is that the suggested multiple day-rates were being interpreted as defining an acceptable range, and in the context of the present experimental circumstances, participants were predisposed not to award large sums for pain and suffering. The "low" awards for the control condition seems to be consistent with this explanation.

One purpose of including the $1000 day-rate condition was to explore the "be-careful-what-you-ask-for" effect reported by Marti and Wissler (2000). We anticipated that the magnitude of the suggested award might be regarded as quite excessive and have the "backfire effect" of reducing the amount awarded. The results did not show such an effect.

The findings offer some interesting implications about day-rate suggestions in awards made by actual juries. It is our understanding that some jurisdictions do not permit day-rate recommendations to juries, but others do. It is beyond the scope of this article to explore this judicial issue, but the results warrant consideration in defining acceptable judicial procedure.

The significant scenario effect and its interaction with the day-rate variable are not particularly interesting or interpretable. It is not surprising that different kinds of accidents with different types of resulting injuries would lead to different pain and suffering awards. Further, the type of injury in this study was confounded with the number of days of remaining life expectancy. The point of employing multiple scenarios was to assess the generalizability of day-rate effects. As the data show, day rate had an effect in all four scenarios.

Finally, we recognize, of course, that the present study employed an individual decision making paradigm as opposed to deliberated group verdicts that real juries carry out. This approach was intentional. Individual decisions enable us to understand basic factors underlying these decisions, uncontaminated by the dynamics and social influences that affect groups. Future research can explore the effects of such influences on pain and suffering awards.

REFERENCES

Brookshire, M. and Slesnick, F. (1999). A 1999 survey of forensic economists: Their methods and their estimates of forecast variables. *Litigation Economics Digest*, 2, 79-81.

Laughery, K.R., Laughery, B.R., Meingast, M.E., Bean, R.N. and Wogalter, M.S. (2000a). Pain and suffering awards for consumer product accidents: Effects of plaintiff-defendant liability and injury severity. *Proceedings of the Human Factors and Ergonomics Society 44th Annual Meeting*, Vol. 4, 120-123.

Laughery, K.R., Laughery, B.R., Meingast, M.E., Bean, R.N. and Wogalter, M.S. (2000b). Allocation of pain and suffering awards for consumer product accidents: Effects of level of economic damages. *Proceedings of the Human Factors and Ergonomics Society 44th Annual Meeting*, Vol. 4, 128-131.

Marti, M.W. and Wissler, R.L. (2000). Be careful what you ask for: The effect of anchors on personal injury damages awards. *Journal of Experimental Psychology: Applied*, 6, 91-103.

Wissler, R.L., Evans, D.L., Hart, A.J., Morry, M.M. and Saks, M.J. (1997). Explaining "pain and suffering" awards: The role of injury characteristics and fault attributions. *Law and Human Behavior*, 21, 181-207.