



Helping *a* Victim or Helping *the* Victim: Altruism and Identifiability

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Abstract

Although it has been claimed that people care more about identifiable than statistical victims, demonstrating this “identifiable victim effect” has proven difficult because identification usually provides information about a victim, and people may respond to the information rather than to identification *per se*. We show that a very weak form of identifiability—determining the victim without providing any personalizing information—increases caring. In the first, laboratory study, subjects were more willing to compensate others who lost money when the losers had already been determined than when they were about to be. In the second, field study, people contributed more to a charity when their contributions would benefit a family that had already been selected from a list than when told that the family *would* be selected from the same list.

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People react differently toward identifiable victims than to statistical victims who have not yet been identified. Specific victims of misfortune often draw extraordinary attention and resources. But, it is often difficult to draw attention to, or raise money for, interventions that would prevent people from becoming victims in the first place. For example, when Jessica McClure (“Baby Jessica”) was trapped in a well in Texas, over \$700,000 was sent to her family for the rescue effort (Variety, 1989). If those donations had instead been spent on preventative health care for children, hundreds of children’s lives could potentially have been saved. As Schelling (1968) noted in a seminal article on what has come to be known as the *identifiable victim effect*, the death of a particular person invokes “anxiety and sentiment, guilt and awe, responsibility and religion, [but]. . . most of this awesomeness disappears when we deal with statistical death.”

Schelling’s comment points to an intuitively plausible psychological account of why identifiability matters. It suggests that identifiable victims stimulate a more powerful emotional response than do statistical victims. However, the limited amount of research that has sought to better understand the identifiable victim effect has not supported such an account.

Jenni and Loewenstein (1997) identified four potential causes of the identifiable victim effect and conducted studies to tease them apart. Most obviously, identifiable victims are more vivid than statistical victims (see Nisbett and Ross, 1980), especially when details about

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them are communicated—e.g., pictures, family information, and so on. Second, identifiable victims are certain victims, whereas statistical victims are, by definition, probabilistic. Research on risky decision making suggests that people are loss-averse—they dislike losses much more than they like equivalent valued gains (Kahneman and Tversky, 1979). If saving a statistical life is seen as a gain, but saving an identified victim is seen as avoiding a loss, then this predicts that people will place greater value on identified victims than on statistical ones.

Third, evaluation of an identified victim is made *ex post*—i.e., after the event has occurred—whereas the evaluation of a statistical life is made *ex ante*. *Ex post* evaluation makes blame and responsibility much more salient, and risk perception can depend on the saliency of blame (Douglas, 1992). Attribution of blame is less clear in the *ex ante* case since it is impossible for people to predict and take on responsibility for all the tragedies that *might* occur. This third cause is closest to the one that Schelling implicitly attributed the identifiable victim effect to, and is close to the cause we examine in this paper.

The fourth cause, and the one that has received the greatest empirical support, is the reference group effect. People feel greater concern toward victims as the reference group they are part of grows smaller (Slovic, Fischhoff, and Lichtenstein, 1980). For example, a disease that kills 100 people out of a group of 100 is seen as a calamity, but one that kills 100 people across the country is experienced as much less disturbing. Identifiable victims represent the most highly concentrated distribution of risk (an n of n) because identifiable victims become, in effect, their own reference group. In contrast, a statistical life has a much larger denominator, because the risk is typically spread across a large population.

Jenni and Loewenstein found only weak support for the first three explanations, but strong support for the fourth explanation involving the proportion of the reference group saved. Similar results were obtained by Featherstonhaugh et al. (1997) and Baron (1997) and all were reported in the same issue of the *Journal of Risk and Uncertainty*, which was devoted to the problem of valuing human life.

The idea that the identifiable victim effect is “just” a reference group effect is somewhat surprising and seems to conflict with Schelling’s compelling intuition that there is something special about identified victims that causes us to react to them in a more emotional fashion. Even if the reference group effect can help to explain the identifiable victim effect, it seems difficult to accept that this is the whole story.

Several psychological theories suggest that people use distinct processes to make judgments of specific as opposed to general targets (Hamilton and Sherman, 1996; Sherman, Beike, and Ryalls, 1999). Dual-process models in social psychology suggest that people become more mentally, and emotionally, engaged when they process information about specific individuals than when they process information about abstract targets. The central-peripheral model (Petty and Cacioppo, 1986) and the Heuristic-Systematic model (Chaiken, 1980) both can be applied to the perception of and reactions to victims. These dual-process models suggest that specific instances are more involving to the perceiver. Specific cases, such as identifiable victims, are thus more likely to receive greater cognitive attention, and deeper consideration. Abstract cases, including statistical victims, are less emotionally involving, and judgments of them are more likely to be made on the basis of peripheral or heuristic cues. The differential functioning of separate processes helps explain why knowing that there is a particular someone in need whom you can help feels

qualitatively different from knowing that you could help one of many possible needy people. *The* victim is more emotionally gripping than *a* victim regardless of the size of the reference group. Based on our doubts about the former “reference group effect” conclusion, we decided to conduct a more focused test of the effect of identifiability.

Testing for an effect of identifiability is difficult because it is hard to manipulate identifiability without altering other factors at the same time. Perhaps the biggest problem is to identify victims in any meaningful fashion without revealing information about them—e.g., their gender or age. As soon as one reveals specific characteristics of the victim—even information as trivial as a name—it is possible that people feel especially sympathetic to people with those characteristics. Once identifying information is provided, it is possible that the specific characteristic rather than the identifiability of the victim *per se* is responsible for any differential response one observes.

In the studies presented here, we avoid this problem by manipulating a particularly weak form of identifiability, *determination of the recipient of help*, that avoids conveying any information about the victim. Statistical victims are indeterminate in the sense that the people who will become victims have not yet been determined. Identifiable victims, in contrast, are determined. The victims’ identities have been determined, whether we learn anything about their identity. We hypothesize, therefore, that even if we have no information about the persons, determined victims will be perceived as more tangible and hence evoke greater sympathy. Indeterminate victims, in contrast, are more difficult to imagine and empathize with, and hence one is less likely to behave toward them in an altruistic fashion.

1. Lab experiment

Our first study uses a specialized version of the “dictator game” to provide a quantitative measure of altruism. In the standard version of the game an “allocator” is presented with an endowment and then given the opportunity to split the endowment with an unknown “recipient.” Although economic models which assume selfishness predict that allocators will keep the entire endowment for themselves, in fact many allocators give a positive amount (see Camerer and Thaler, 1995, for a review of findings). Of special relevance to the current study, Hoffman, McCabe, and Smith (1996) varied the design of the dictator game in various ways, including permitting communication between the allocator and the recipient. They found that individuals who communicated with one-another became more other-regarding, and posited that it had this effect because it reduced the perceived “social distance” between the players.

Bohnet and Frey (1999) examined one aspect of social distance that is especially closely related to identifiability. They conducted a version of the dictator game in which different subjects played either (a) completely anonymously, (b) with silent identification, and (c) with face-to-face communication. They found that relaxing anonymity while still forbidding dialogue was sufficient to increase other-regarding behavior. Note that relaxing anonymity is somewhat different from pure identifiability as we have defined it. First, in the context of their studies, it introduces the possibility that one will interact with the individual in the future, and that such interaction will be affected by the recipient’s knowledge of the dictator’s behavior. Second, as discussed above, it introduces the possibility that any effect

is due to the specific identities of the linked pairs as opposed to the mere fact that they are identified. Nevertheless, the results are certainly consistent with our prediction that determining the person to be helped increases generosity.

In our first experiment, we modified the dictator game to produce a situation in which fortunate subjects who retained their endowment could contribute a portion of it to “victims” who had lost theirs. The main manipulation in the study was whether the identity of victims had already been, or was about to be but had not yet been, determined. We hypothesized that determined victims would receive more money.

1.1. Method

Seventy-six undergraduate students at Carnegie Mellon University participated in the study in exchange for research participant credit and whatever sum of money they earned from the game. Subjects were recruited in groups of ten, and were randomly assigned as a block to one of the two conditions (determined or undetermined). They were seated in cubicles facing away from one another and were instructed not to speak or turn around and look at one another during the course of the experiment. The experimenter informed the subjects that all decisions they made would be anonymous and that, at no point during or after the experiment, would anyone learn the identity of anyone they were paired with. At the end of the experiment, subjects were told that they would receive their payments from the outcome of the allocations in sealed envelopes, so that they would only learn the outcome of their own allocation, and no one else’s.

At the beginning of an experimental session, each subject was given an envelope with \$10.00 in the form of 40 paper tokens worth \$0.25 each. Subjects were informed that the tokens were equivalent to real money and that those they retained at the end of the game could be exchanged for cash. The experimenter then circulated the room with a bag of pieces of paper labeled with a number from 1–10, and each subject drew a number.

Each subject then received the following written instructions:

The actual experiment requires that half of the participants begin the task with \$10.00 in paper tokens, but that half begin with nothing. To create this situation, each person will draw a card from the bag. Half of the cards have the word “KEEP” on them, and the other half have the word “LOSE” written on them. If you draw a “KEEP” card, you keep your paper tokens. If you draw a LOSE card, put your number card and your tokens in the bag when the experimenter comes to you.

The next part of the instructions differed subtly for those in the determined and undetermined conditions.

In the determined condition, the instructions read:

Each “KEEP” participant will now be linked with one “LOSE” participant. If you are a KEEP participant, you will draw one of the “LOSE” participant’s numbers from the bag. Please do so now and write it on the following line. I am linked with number_____.
If you are a “LOSE” participant, write an **X** in the blank.

In the undetermined condition, the instructions read:

In a moment, each of the “KEEP” participants will be linked with one “LOSE” participant by having the “KEEP” participant draw one of the “LOSE” participant’s numbers from the bag. Before we do that, however, we have a decision for you.

For participants in both conditions, the instructions then continued:

KEEP participants: If you are a “KEEP” participant, you now have the opportunity to allocate your \$10.00 endowment between yourself and the “LOSE” participant. The decision that you make is *final*. That is, all of the tokens that you allocate to yourself are yours to cash in at the end of the experiment. Likewise, the LOSE participant you have been linked with will cash in whatever tokens you allocate to him/her. Remember, the roles assigned and your decision will be anonymous. No one will ever learn that you are a KEEP participant, you will never learn the identity of the person you are linked with, and none of you will know how much money each participant takes home.

Please put the tokens you would like to give the participant you are linked with in the manila envelope. Also, write your decision in the following blanks:

_____ Keep for self
 _____ Give to linked participant
\$10.00 TOTAL

LOSE participants: Put these instructions back in the white envelope and seal it.

At this point, the instructions in the undetermined condition said:

Now, we will draw the number of the LOSE player you will be linked with. Please draw a number from the bag and write the number here _____.

Finally, KEEP participants in both conditions were told to put the tokens they were keeping for themselves in the white envelope with their instructions sheets and to seal the envelope.

As the instructions indicate, the only aspect varied between the two conditions was the time when an allocator drew the number of the recipient: before making an allocation in the determined condition and after making an allocation in the undetermined condition. The experiment was implemented exactly as specified by the instructions. There was no deception; payment was determined as described to the subjects.

1.2. Results

Our major hypothesis, that Allocators would give more money to recipients in the determined condition than in the undetermined condition, was supported. The results are reported in Table 1.

Because the contributions were not distributed normally, we analyzed the difference between the two groups with a Mann-Whitney non-parametric test, which confirmed that

Table 1. Summary statistics of allocations to undetermined and determined recipients in the lab experiment.

Condition	Undetermined victim (<i>n</i> = 37)	Determined victim (<i>n</i> = 39)
Mean	\$2.12	\$3.42
Standard deviation	\$1.79	\$2.51
Median	\$1.81	\$3.81
Mode	\$2.00	\$5.00
Percent of \$5.00 (or greater) offers	18.9%	46.1%
Percent of \$0.00 offers	18.9%	15.4%

subjects gave significantly more to victims who had been determined prior to the allocation task than to victims who were yet to be determined ($Z = -2.3$, $p = 0.02$).

From the last two rows of the table, it is apparent that the determination manipulation affected the magnitude of donations to victims but not the tendency to make any donation at all. There was a striking difference between the two groups in mean, median and modal contributions, but virtually the same fraction of subjects in each condition gave some positive amount.¹

Figure 1 presents histograms of giving in the two conditions, which reinforces the observation that the major difference between the two conditions is in how much subjects gave rather than whether they gave. The figure also shows that contributions were not normally distributed.

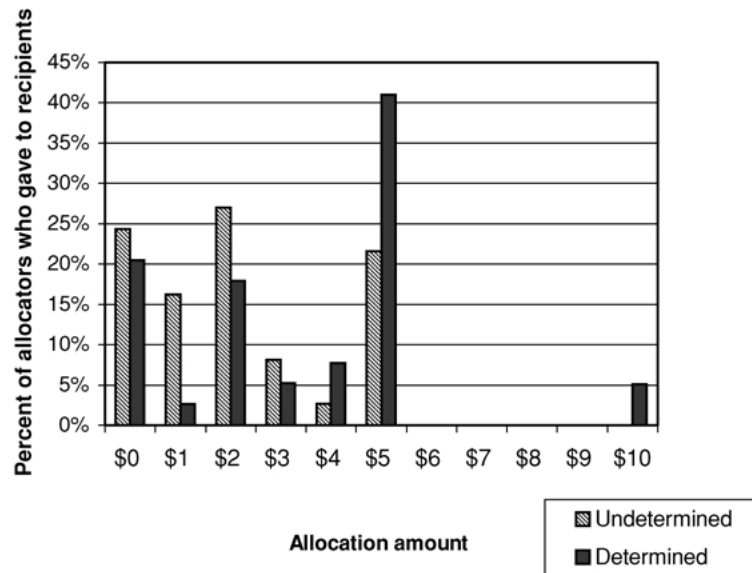


Figure 1. Comparison of allocations to undetermined and determined recipients. Donations are rounded to the nearest dollar.

1.3. Discussion

This study provides evidence for the effect of identifiability on altruism. The results are especially striking because the “victims” in our study were, in the general scheme of things, not particularly disadvantaged—they had simply missed out on the opportunity to gain a \$10 windfall—and the determination manipulation was subtle. If such a weak form of identifiability can produce such a dramatic difference in altruistic behavior it seems likely that variations of identifiability will produce even more dramatic effects in naturalistic situations in which, for example, one usually does obtain at least some information about identifiable victims. Nevertheless, such an effect cannot be assumed, which is why we chose to conduct our follow-up study in the field.

2. Field experiment

In our second study, potential donors were presented with a letter requesting money to buy materials for a house that was to be built for a needy family through the Habitat for Humanity organization. The letter described several families on the waiting list to move into homes. Identifiability was manipulated by informing respondents that the family either “*has been selected*” or “*will be selected*” from the list. In neither condition were respondents told which family had been or would be selected; the only difference between conditions was in whether the decision had already been made.

2.1. Method

At public places around Pittsburgh, including the airport and shopping centers, people were approached and 234 individuals consented to fill out a survey on an unrelated topic for \$5.00 pay. When they finished the survey, each was presented with 5 one dollar bills, a return envelope, and a letter from Habitat Humanity.² Participants were told that the request was entirely separate from the survey just completed. They were asked to read the request, regardless of whether they thought they would be interested in donating the money that they had earned, and to return the envelope, sealed with their receipt and any amount of the \$5.00 they chose to donate, even if they were giving nothing. The survey administrators were blind to the hypothesis and unaware that the charity request letter came in two forms that were randomly distributed among the surveys. The text of the letter in the “determined” condition, with alternative wording for the undetermined condition presented in brackets, was as follows:

Several families have applied to help build and purchase a home for themselves. Habitat protects the confidentiality of applicants, but here are brief descriptions of the families, names excluded:

- 1) *A single dad who works as a painter. He has two kids: his 8-year-old lives with him and he pays child support for another child.*
- 2) *A single mom who lives with her 3 children and her disabled father. Her kids are ages 4, 2, and 5 months.*

- 3) *A single mom who is on disability. She lives with her 2 children: a 12-year-old and a 20-year-old who is also on disability.*
- 4) *A single mom with 4 kids: ages 14, 11, 11, and 9. Her current home is plagued by infestation, a leaky roof, birds in the attic, and high gas bills.*

Eighty percent of the money raised will go directly toward building materials for the construction of the next house; the rest goes to administrative costs. Pittsburgh Habitat has already decided [will decide], based on need, which of the families just described is in the most need, and that family will move in to the house built by CMU students and faculty. The family that Habitat chose [will choose] will participate in the building of their new home. If you would like to donate any of the money that you received for filling out your questionnaire to help build a home for the family that habitat has chosen [will choose], please put it in the envelope. We do not want you to feel pressured into giving so feel to step aside from the researcher, put what you choose of your \$5.00 in the envelope, and return it to the researcher, sealed, regardless of whether, or how much you have contributed.

2.2. Results

As in the previous study, we predicted, and found, that contributions would be larger when the recipients had already been determined than when they were yet to be determined. Summary statistics for the study are presented in Table 2.

Whether measured by mean, median or mode, donations were larger in the determined condition than in the undetermined condition, and the differences is significant by a Mann-Whitney test ($Z = -1.99$, $p = 0.05$). Moreover, unlike the previous study, more people in the determined family condition gave anything at all (69.5%) than when the family had not been determined (56.9%), again a significant difference ($\chi^2(1) = 3.99$, $p = 0.05$). Figure 2 presents a histogram of the results.

One possible alternative interpretation of the results is that respondents might have construed either the organization or the potential recipients differently based on whether or not Habitat for Humanity had yet selected the recipient of the home. It is possible that respondents might infer that the organization is less trustworthy to carry through with its plans, or that the family that will be chosen will be less deserving, if the money is being raised before

Table 2. Summary statistics of allocations to undetermined and determined families in the field experiment.

Condition	Undetermined family ($n = 116$)	Determined family ($n = 118$)
Mean	\$2.33	\$2.93
Standard deviation	\$2.31	\$2.25
Median	\$2.00	\$4.00
Mode	\$0.00	\$5.00
Percent of \$5.00 offers	38.8%	49.2%
Percent of \$0.00 offers	43.1%	30.5%

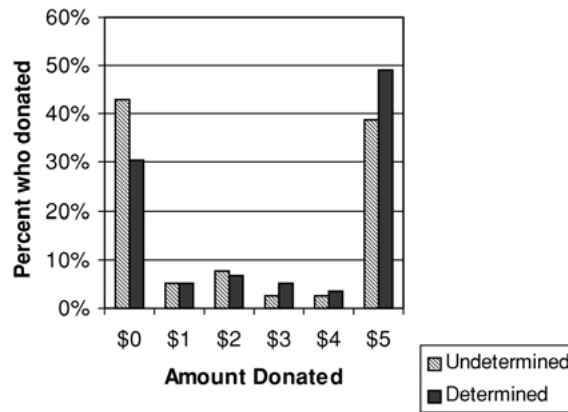


Figure 2. Comparison of donations to undetermined and determined habitat for humanity families receiving aid.

a beneficiary has been chosen. To test these potential alternative accounts of the results, we conducted a brief survey to explore whether people construed the situation differently in the two conditions. We presented a separate sample of 42 undergraduate students at Carnegie Mellon University with the charity request letter (half received the determined family condition and half received the undetermined family version) and asked them to respond to the following questions on 7-point likert scales:

- 1) *How likely do you think it is that money donated will actually go to building a home for a needy family; and*
- 2) *Assuming such a home is, in fact, constructed, what is your best guess of the neediness of the family that receives it.*

There were no differences across conditions in the responses ($p = 0.74$; 0.69 respectively). Mean responses to question 1 were 5.7 for the unidentified condition and 5.8 for the identified condition, and for question 2 were 5.6 for the unidentified condition and 5.7 for the identified condition. It seems unlikely, therefore, that the effect we observed resulted from different interpretations of the situation.³

2.3. Discussion

This field study provides even stronger support that identifiability of the victim affects altruism. By moving out of the laboratory, we eliminated potential artifacts such as the concern that students might have felt of being “found out” by their peers or other non-empathetic motives. By collecting money for a real charity to help people truly in need, we illustrate the real world implications of this effect.

3. General discussion and conclusions

In combination, these two studies provide new evidence supporting the existence of an identifiable victim effect. The weak form of our determination manipulation shows, furthermore,

that the effect is not due to specific information that people receive about victims (although that can be a contributing factor). Although reference group size may again be a contributing factor in the real world, even when one holds the reference group size constant, there remains an effect of identifiability.

Although we conjecture about the cause of the effect, and specifically speculate that identifiability affects the way that people think about, and emotionally react to, victims, our studies provide no evidence that these are the actual mechanisms that produce the effect. Future research could test for mediation by measuring emotions, or by examining the impact of inducing or suppressing specific emotions.

Another possible contributing factor is that determined victims provide more salient reasons to act. Shafir, Simonson, and Tversky (1993) maintain that many decisions are driven by arguments or reasons, rather than value-based calculations of options. Thus, in one study, some subjects were asked to imagine that they had agreed to take a wager that gave them a 50–50 chance of winning \$150 or losing \$100 and had lost, and were asked if they would like to play again. A majority said that they would. Others were told that they had taken the wager and had won; again they wanted to play again. However, when they were told that they had accepted the first wager but had not yet played, a majority said that they did not want to play again. Apparently, actually resolving the uncertainty initiated a line of reasoning that subjects did not spontaneously engage in when the uncertainty was not resolved. In future research it would be interesting to test whether statistical victims similarly evoke different arguments or reasons from victims that have been identified.

In ongoing research, we are attempting to generalize these results beyond the impact of identifiability on empathy for, and altruism toward, victims. If it is true that simply determining a victim increases helping by reducing the psychological distance between the self and a victim, then it is possible that determining a target other than a victim could have an impact as well. Victims are victims because they are not responsible for their situation and thus evoke sympathy and pity (Weiner, 1980). If, instead, a person in need is considered responsible for their adverse situation, then the resulting emotions might instead be anger and disgust. Anger follows from the belief that another person “could and should have done otherwise,” and the emotion diminishes our inclination to help this person (Weiner, 1995). If we feel greater pity for a victim who has been determined, it might be the case that we feel stronger anger toward a determined target who caused and is responsible for their predicament. Therefore the “determined victim effect” behind identifiability may simply be one case of a more general “determined *other* effect,” in which any determined target evokes a stronger emotional reaction than an undetermined target. Future research should explore the range of other social judgments and behaviors that are moderated by determination.

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Notes

1. There was no significant correlation between the amount given and subjects' own numbers or the number of the recipient with whom they were paired as might have been expected if subjects had anchored on their numbers ($R = -0.131$, $p = 0.3$; $R = 0.089$, $p = 0.5$, respectively).
2. The request for donation was genuine and all information in the letter was factual. Letters were typed on Habitat for Humanity Pittsburgh letterhead and the families described were real people on the waiting list to receive homes. All donations were given directly to the organization.
3. In the follow-up survey we also explored potential mediators of the effect of identifiability. We sought to discover whether the determination was evoking greater empathy and responsibility for and imagery of the victims, which in turn was driving the result. We asked the following questions: (1) When thinking about the family, did you imagine what it would be like to be in their situation without a decent home? (2) How sympathetic are you toward the family? (3) How personally responsible do you feel for the family? Respondents who had read the charity request from the determined family condition answered these questions similarly to those who had read the charity request from the undetermined family condition ($p = 0.12$; 0.67 ; 0.61 , respectively). Therefore, we cannot make inferences about the psychological processes driving our result. However, this null result is not entirely surprising considering that people are less likely to be emotionally engaged when hypothetically considering a charity, rather than contemplating the real choice of giving up money (see, e.g., Van Boven et al. 2001).

References

- Baron, Jonathan. (1997). "Confusion of Relative and Absolute Risk in Valuation," *Journal of Risk and Uncertainty* 14, 301–309.
- Bohnet, Iris and Bruno Frey. (1999). "The Sound of Silence in Prisoner's Dilemma and Dictator Games," *Journal of Economic Behavior & Organization* 38, 43–57.
- Camerer, Colin and Richard Thaler. (1995). "Anomalies: Ultimatums, Dictators, and Manners," *Journal of Economic Perspectives* 9(2), 209–219.
- Chaiken, Shelly. (1980). "Heuristic Versus Systematic Information Processing and the Use of Source Versus Message Cues in Persuasion," *Journal of Personality and Social Psychology* 39(5), 752–766.
- Douglas, Mary. (1992). *Risk and Blame: Essays in Cultural Theory*. New York: Routledge.
- Featherstonhaugh, David, Paul Slovic, Stephen M. Johnson, and James Friedrich. (1997). "Insensitivity to the Value of Human Life: A Study of Psychophysical Numbing," *Journal of Risk and Uncertainty* 14, 283–300.
- Hamilton, David L. and Steven J. Sherman. (1996). "Perceiving Persons and Groups," *Psychological Review* 103(2), 336–355.
- Hoffman, Elizabeth, Kevin McCabe, and Vernon L. Smith. (1996). "Social Distance and Other-Regarding Behavior in Dictator Games," *The American Economic Review* 86(3), 653–660.
- Jenni, Karen E. and George F. Loewenstein. (1997). "Explaining the "Identifiable Victim Effect," *Journal of Risk and Uncertainty* 14, 235–257.
- Kahneman, Daniel and Amos Tversky. (1979). "Prospect Theory: An Analysis of Decision Under Risk," *Econometrica* 47(2), 263–291.
- Nisbett, Richard and Lee Ross. (1980). *Human Inference: Strategies and Shortcomings of Social Judgment*. New Jersey: Prentice-Hall, Inc.
- Petty, Richard E. and John T. Cacioppo. (1986). *Communication and Persuasion. Central and Peripheral Routes to Attitude Change*. New York: Springer-Verlag.
- Schelling, Thomas C. (1968). "The Life you Save may be your own." In Samuel B. Chase (ed.), *Problems in Public Expenditure Analysis*. Washington DC: The Brookings Institute.
- Shafir, Eldar, Itamar Simonson, and Amos Tversky. (1993). "Reason-based Choice," *Cognition Special Issue: Reasoning and Decision Making* 49(1/2), 11–36.
- Sherman, Steven J., Denise R. Beike, and Kenneth R. Ryalls. (1999). "Dual-Processing Accounts of Inconsistencies in Responses to General Versus Specific Cases." In Shelly Chaiken and Yaacov Trope (eds.), *Dual-Process Theories in Social Psychology*. New York: The Guilford Press.

- Slovic, Paul, Baruch Fischhoff, and Sarah Lichtenstein. (1980). "Facts and Fears: Understanding Perceived Risk." In Richard C. Schwing and Walther A. Alberts, Jr. (eds.), *Societal Risk Assessment: How Safe is Safe Enough?* New York: Plenum Press.
- Van Boven, Leaf, George Loewenstein, Ned Welch, and David Dunning. (2001). "The Illusion of Courage: Underestimating Social-Risk Aversion in Self and Others." Working paper. Department of Social and Decision Sciences, Carnegie Mellon University.
- Weiner, Bernard. (1980). "A Cognitive (Attribution)-Emotion-Action Model of Motivated Behavior: An Analysis of Judgments of Help Giving," *Journal of Personality and Social Psychology* 39, 186–200.
- Weiner, Bernard. (1995). *Judgments of Responsibility: A Foundation for a Theory of Social Conduct*. New York: Guilford Press.
- Variety. (1989). "TV Reviews—Network: Everybody's Baby," Volume 3335:7, May 31.