

Consenting to Donate Organs: Whose Wishes Carry the Most Weight?

RICHARD JACKSON HARRIS¹
Kansas State University

JOHN DAVID JASPER
University of Iowa

BRIAN C. LEE AND KYLE E. MILLER
Kansas State University

An experimental simulation methodology examined how people weigh the wishes of the donor and the next-of-kin in recommending whether the latter should consent to donate the organs of a deceased loved one. Subjects read several brief stories, each describing a young adult who had died suddenly and whose kin faced the decision of whether to donate their loved one's organs. Each scenario had four versions, identical except for minor wording changes providing information about the organ donation wish of the potential donor and the next-of-kin. Subjects indicated "yes," "no," or "I'm undecided" about whether the kin should donate the organs. Subjects weighted the wishes of the deceased much more heavily than their own or those of the next-of-kin when those wishes were stated directly. When the deceased's wishes had to be inferred indirectly, attitudes of the next-of-kin and the experimental subject affected the decision much more. Implications for organ procurement practice are considered.

Although most people, professional and laypersons alike, have heard of organ donation and generally support the concept (Gallup, 1983; Manninen & Evans, 1985; Prottas & Batten, 1988), a relatively small percentage of the population has signed an organ donor card (Overcast, Evans, Bowen, Hoe, & Livak, 1984). Even when a signed donor card (a legally binding document under most state versions of the Uniform Anatomical Gift Act) is present, however, transplant surgeons will not remove organs without the consent of the next-of-kin (Childress, 1987; Lee & Kissner, 1986; Overcast et al., 1984; Peters, 1986; Prottas, 1985; Schwindt & Vining, 1986). Recently an increasing number of people are suggesting that psychology may be important in explaining why the number of actual donors falls so far short of the number of those who generally favor the concept (Olbrisch, 1989; Perkins, 1987; Shan-teau & Harris, 1990).

Clearly the actual situation where one would have to make such an emotional decision is impossible to study in the laboratory or anywhere else with a

¹Correspondence concerning this article should be sent to Richard J. Harris, Department of Psychology, Bluemont Hall, Kansas State University, Manhattan, KS 66506-5302.

high degree of experimental control. To deal with this problem, the present research used a methodology developed by Harris, Jasper, Shanteau, and Smith (1990) for a laboratory simulation of a situation where a family must decide whether to consent to donate the organs of a next-of-kin who has tragically died. By using alternative versions of the same scenario, the effect of specific information on the decision process can be examined.

In a preliminary study, Harris et al. (1990) used two versions of each of several stories and asked subjects to recommend whether the characters in the story should consent to donate the organs of their next-of-kin. Results showed that the primary factor considered in the consent decision was the wish of the deceased in regard to organ donation, whereas the attitudes of the next-of-kin carried far less weight. The present study systematically and orthogonally varied both the attitudes of the donor and the attitudes of the next-of-kin toward organ donation. The attitudes of each were either stated directly or left to be inferred. Also, the attitude of the subject toward organ donation was assessed and examined for its relation to the consent decision.

Method

Stimulus Materials

Twenty-three brief scenarios of 55–125 words were written. To remove any obvious interstory contamination effects, they were carefully divided into three groups of stories read by three different samples of subjects: 8 scenarios by sample 1, 6 by sample 2, and 9 by sample 3. Each scenario described a situation whereby a young adult had recently died a tragic death and whose kin were now facing the decision of whether to consent to donate their loved one's organs. Each scenario had four versions, identical except for a minor wording change in one detail focusing on a critical issue, attitude, or word. For the purposes of this paper, data from only seven of the scenarios will be considered. The other stories dealt with organ donation issues unrelated to the topic of this paper and may be considered as fillers.

Three of the seven stories dealing with wishes of the various parties orthogonally varied explicit donation attitudes of the donor and the next-of-kin in a 2×2 fashion. In one of these scenarios, in each of the four versions the donor had either signed or deliberately chose not to sign an organ donor card, and the next-of-kin explicitly either favored or opposed organ donation. Two other scenarios did not mention a legal document but mentioned an unquestionable oral commitment of the donor and next-of-kin for or against organ donation. The four versions of each scenario were constructed in the same way.

The remaining four stories dealt with the implied wishes of the donor and

were actually two replications of two scenarios. One of these scenarios systematically crossed the donor's and the next-of-kin's stated theological beliefs in a bodily resurrection (donor) and belief that organ donation is for or against the will of God (kin). The other scenario orthogonally varied the donor's stated admiration or mistrust for the medical profession and the next-of-kin's identification as either being physicians themselves or distrusting doctors. Although no one's explicit attitude on organ donation was stated, subjects were allowed to make the inference that belief in a bodily resurrection or strong distrust of the medical profession might suggest one is opposed to donating their organs. Each of these scenarios in each pair was seen by two different samples of subjects, thus serving as replication. The filler stories dealt with other attitudinal, terminological, or sociodemographic issues.

Procedure

The subjects were 1171 introductory psychology students at Kansas State University who participated as part of a course requirement. No mention on the signup sheet was made of organ donation. Most subjects, as well as the donors in the stories, were 18–25 years of age. The design and procedure for all three samples (488, 395, and 288 subjects, respectively) were identical, differing only in the composition of the actual stories used. The present paper discusses only the results from stories examining the effects of the attitudes of the deceased, the next-of-kin, and the experimental subjects toward organ donation.

Subjects were told that “This experiment is part of an ongoing project on psychological aspects of organ donation . . . [you will] read several brief scenarios of hypothetical people in hypothetical situations where they face a moral dilemma and must make a choice about organ donation.” Subjects were then told to indicate whether they thought the surviving relatives should or should not agree to donate the organs of the deceased, or whether they were uncertain what that person should do. Next, subjects were asked to write down their reasons for their choice and were told, “There are no right or wrong answers; we are only interested in how people approach these situations. Though we realize this may not be a pleasant topic to think about, we hope that the time spent on it in this experiment will help clarify your own knowledge and thinking about this very serious and increasingly important moral and medical issue.” Subjects were told to work at their own speed and to ask any questions that they had. Finally, they were told that they would first complete a brief demographic questionnaire, which would be followed by the decision scenarios.

The answer booklet consisted of a demographic questionnaire and answer sheets to evaluate the stories. The demographic questionnaire gathered

information on sex, ethnic background, education, college major, religion, and marital status, as well as information about the subject's present attitude on organ donation. Specifically, they were asked to check one of the following five choices, in response to the question "Have you signed the back of your driver's license or another organ donor card indicating that you will donate organs after your death?": "yes"; "no, but I'd be willing to do so if asked"; "no, but I might consider doing so in the future"; "no, I thought about it and decided not to"; or "no, I didn't even know about it."

The scenarios themselves were presented at 3–4 stories per sheet. To partially counterbalance the order, each sheet of stories was read first by one third to one half of the subjects. For each story subjects checked "yes," "no," or "I'm undecided" and then gave reasons for their decision. The answer sheet allowed about one inch of space to write reasons for their choice. Subjects worked at their own speed.

Results

Demographic Data

Overall, the sample of 1171 was gender-balanced (49.4% male, 50.6% female) and 93% white (4% black, 1.5% Hispanic, 1.2% Asian). They were young (mean age = 19.84, Mdn = 18.9, with a range of 17–52 years), mostly freshman (68%) or sophomores (20%). Most (81%) were Christian, with 15.4% indicating No Religion, 1% Jewish, and 2.1% other religions. About one quarter of the sample were Business majors, another quarter Arts and Sciences majors, and the rest were scattered in Engineering, Agriculture, Architecture, Education, Human Ecology, Veterinary Medicine, and Un-declared majors.

Almost everyone (98.6%) had heard about organ donation. Although only 14.4% had signed a donor card (Donors), 22.3% said they would be willing to do so if asked (Willings), and another 46.0% said that they might consider doing so in the future (Undecideds). Only 15.0% reported that they had decided not to sign a donor card (Nondonors), and 2.0% reported not knowing about the donor card on the back of their driver's license. This is consistent with past research (e.g., Harris et al., 1990; McIntyre et al., 1987; Skowronski, 1990) and suggests that a large number of people have as yet made no commitment to become organ donors but may very likely agree to it with only moderate persuasion, and perhaps with only a request. These findings make it very clear that the lack of available donors is not due to widespread disagreement with the idea of organ donation.

A breakdown of gender and religion by subject donor category showed that males and females differed only slightly, with nonsignificantly more male

nondonors and female donors. Overall, there were no religious differences across the donor groups.

The sources from which subjects reported hearing about organ donation showed the major sources to be driver's license (78.6%), television (61.2%), magazines (49.0%), and newspapers (47.6%). The relative importance of different sources was similar to the results of Manninen and Evans (1985), except for all the percentages being higher, presumably due to the greater general knowledge and public discussion of organ donation in the five years or so between the two experiments.

Decision Data

The frequency of yes, no, and undecided responses were tabulated for each story in each version. These results appear in Tables 1 and 2. Confidence intervals for percentages referred to below were calculated using the following formula for proportions: $p \pm t \sqrt{pq/n}$, where p = probability of success, $q = 1 - p$, t = critical t value from a standard table, and n = number of subjects. A .05 level was used in all tests, with $t = 1.96$. Differences were tested by calculating 95% confidence intervals around the mean frequencies. A statement of a "significant" difference in the text below reflects nonoverlapping intervals of the two distributions.

Directly expressed wishes concerning organ donation. Three stories ("Larry," "Suzanne," "Ivan") orthogonally varied the explicit attitude of the deceased and the next-of-kin favoring or opposing organ donation. Results from the three stories did not differ and are thus combined in Table 1. A clear conclusion across all three scenarios is that by far the more important factor in the decision was the known wishes of the deceased. In all three stories, if the deceased had clearly stated a preference for organ donation (e.g., by signing a donor card), subjects significantly more often chose donation. This strong preference changed only very little if the next-of-kin was clearly against donation. Also if the deceased opposed but the next-of-kin favored donation, subjects strongly significantly recommended not donating.

This finding occurred in all the donor subject groups, including the Nondonors. Table 1 shows the data partitioned by subject donor category, combining the signed-donor and willing-to-sign groups as "Donors." In no case did the proportion of Nondonor subjects recommending donation differ significantly from the Donor subjects. Both Donors and Nondonors respected the stated wishes of the deceased, even when those wishes were diametrically opposed to their own views and/or those of the next-of-kin.

These stated wishes strongly override other factors. For example, Harris et al. (1990) and Jasper et al. (in press) found subjects more positively disposed to organ donation for purposes of transplantation than for use in medical

Table 1
Percentages of Decision Responses: Direct Wishes (Composite of Larry, Suzanne, and Ivan Stories)

	Data points	Yes*	No*	Undecided
Donor and kin favored donation	354	98.7 (1.0)	1.3	0.0
Donor or Willing subjects	132	99.2 (1.7)	0.6	0.0
Undecided subjects	165	98.8 (1.5)	1.2	0.0
Nondonor subjects	57	96.5 (5.1)	3.5	0.0
Donor favored, kin opposed	354	94.8 (2.3)	3.3	1.6
Donor or Willing subjects	144	97.2 (2.8)	1.4	1.4
Undecided subjects	155	94.8 (3.4)	3.2	1.3
Nondonor subjects	55	87.3 (8.9)	9.1	3.7
Donor opposed, kin favored	355	12.6 (3.5)	77.3 (4.4)	10.1
Donor or Willing subjects	132	18.2 (6.6)	71.2 (7.7)	10.6
Undecided subjects	163	9.2 (4.4)	80.4 (6.1)	10.4
Nondonor subjects	60	8.3 (6.9)	83.3 (9.5)	8.3
Donor and kin opposed donation	350	7.7 (2.8)	88.7 (3.3)	3.6
Donor or Willing subjects	132	14.4 (5.9)	81.8 (6.6)	3.8
Undecided subjects	165	3.1 (2.6)	93.3 (3.9)	3.6
Nondonor subjects	53	3.8 (5.3)	92.4 (7.3)	3.8

*95% confidence interval indicated by plus or minus the number in parentheses.

research. Using the same methodology as the present experiment, Jasper et al. (in press) crossed these two intended uses of organs with the explicit wish of the deceased (signed donor card/ chose not to sign donor card) and found that the donor's stated wish almost totally overrode the stated use of the organs in the subjects' decisions.

Indirectly inferred wishes concerning organ donation. Two stories ("Michelle" and "Linda") tapped into donation attitudes in a more inferential fashion. (Each of these was replicated with a second sample of subjects; results of the replication did not differ from the first session and thus are not reported here). In one story a general admiration and trust of doctors (or lack thereof) of the donor (Michelle) and the next-of-kin was orthogonally varied. No mention was made of organ donation in the scenario itself. Results followed somewhat the same pattern as seen in the three stories summarized in Table 1 but much less strongly. If both parties admired and trusted doctors, the decision to donate was high (88%). If the donor admired doctors but the surviving parents distrusted them, it fell significantly, to 66%. Data are presented in Table 2, with results from the two stories presented separately, due to some important differences discussed below.

The two conditions where the donor distrusted doctors were much more mixed, with 24–44% of the overall responses in each of the three response categories, suggesting much uncertainty among the subjects. When these data were partitioned by subject donor category (see Table 2), differences in the subject's a priori attitude toward donation become much more apparent than in the stories where the deceased's wish was unequivocal. For the two versions of the story where the donor distrusted doctors, the Nondonor subjects were significantly less likely to recommend donation than were the Donors.

A second scenario used to examine the implied attitudes about organ donation described the donation-related religious beliefs of the donor (Linda) and the next-of-kin. The victim believed in either a bodily or a spiritual resurrection, whereas the next-of-kin believed that organ donation was either for or against God's will. If both beliefs supported donation, 93% of the subjects chose to donate, but if both were against donation, 86% chose not to donate. The two intermediate conditions were much more mixed but did not significantly differ from each other. When one party's religious beliefs supported donation and the other was against it, about half of the subjects opted for donation, a third opted against it, and one sixth were uncertain. Unlike the cases of the direct wishes expressed in the stories in Table 1, none of these percentages significantly differed as a function of which party favored donation and which opposed it. Subjects seemed to be weighting the religious beliefs of the next-of-kin to a greater extent than they had weighted the kin's explicit attitudes toward organ donation, presumably because of the lack of definitive information about the donor's explicit wishes. Another factor may

Table 2
Percentages of Decision Responses: Indirect Wishes

"Michelle" story	N	Yes*	No*	Undecided*
Donor admired MDs, parents were MDs				
All subjects	117	87.5 (6.0)	1.7 (2.3)	10.8 (5.7)
Donor or Willing subjects	48	91.7 (7.7)	0.0	8.3 (7.7)
Undecided subjects	51	88.2 (8.9)	0.0	11.8 (8.9)
Nondonor subjects	18	72.2 (20.7)	11.4 (14.4)	16.7 (17.4)
Donor admired MDs, parents distrusted MDs				
All subjects	117	66.1 (8.6)	10.7 (5.7)	23.1 (7.6)
Donor or Willing subjects	36	86.1 (11.3)	2.8 (5.6)	11.1 (10.2)
Undecided subjects	61	62.3 (12.2)	9.8 (7.5)	27.9 (11.3)
Nondonor subjects	20	50.0 (21.9)	20.0 (17.5)	30.0 (20.1)
Donor distrusted MDs, parents were MDs				
All subjects	116	43.4 (9.0)	31.1 (8.4)	24.6 (7.9)
Donor or Willing subjects	48	62.5 (13.7)	18.8 (11.1)	18.8 (11.1)
Undecided subjects	53	35.8 (12.9)	34.0 (12.8)	28.3 (12.1)
Nondonor subjects	15	20.0 (20.2)	46.7 (25.3)	33.3 (23.8)
Donor and parents distrusted MDs				
All subjects	121	33.6 (8.4)	40.8 (8.8)	25.6 (7.8)
Donor or Willing subjects	48	43.8 (14.0)	27.1 (12.6)	29.2 (12.8)
Undecided subjects	51	31.4 (12.7)	47.1 (13.7)	21.6 (11.4)
Nondonor subjects	22	13.6 (14.5)	54.5 (20.8)	31.8 (19.5)

"Linda" story	N	Yes*	No*	Undecided*
Donor believes only soul rises; kin believe donation is will of God				
All subjects	116	92.6 (4.6)	1.6 (2.3)	4.9 (4.0)
Donor or Willing subjects	48	95.8 (5.5)	0.0	4.2 (5.5)
Undecided subjects	53	94.3 (5.2)	0.0	3.8 (5.2)
Nondonor subjects	15	80.0 (20.2)	13.3 (17.0)	6.7 (12.9)
Donor believes only soul rises; kin believe donation against will of God				
All subjects	121	48.8 (8.9)	32.8 (8.4)	18.4 (6.8)
Donor or Willing subjects	48	56.3 (9.8)	31.3 (13.1)	12.5 (9.2)
Undecided subjects	51	45.1 (13.7)	27.5 (12.3)	27.5 (12.2)
Nondonor subjects	22	31.8 (19.5)	54.5 (20.8)	13.6 (14.5)
Donor believes body and soul rise; kin believe donation is will of God				
All subjects	117	51.7 (9.1)	31.7 (8.5)	16.7 (6.8)
Donor or Willing subjects	48	58.3 (14.0)	29.2 (12.8)	12.5 (9.4)
Undecided subjects	51	49.0 (13.7)	33.3 (12.9)	17.6 (10.5)
Nondonor subjects	18	44.4 (22.9)	27.8 (20.7)	27.8 (22.1)
Donor believes body and soul rise; kin believe donation against will of God				
All subjects	117	7.4 (4.6)	86.0 (6.3)	6.6 (4.3)
Donor or Willing subjects	36	11.1 (10.2)	80.6 (12.8)	8.3 (8.9)
Undecided subjects	61	3.3 (4.3)	90.2 (7.5)	6.6 (6.4)
Nondonor subjects	20	15.0 (15.6)	80.0 (17.5)	5.0 (9.6)

*95% confidence interval indicated by plus or minus the number in parentheses.

have been that the way that the kin's implied wishes were stated in the Linda story ("religious beliefs stress the importance of charitable actions like organ donation" versus "religious beliefs stress that organ donation is against the will of God") was probably a stronger antidonation condition than a statement in the Michelle story that they distrusted doctors.

When partitioned by subject donor category, the data did not reflect the large differences across the groups found in the Michelle story dealing with attitudes toward doctors. Why the subjects' own attitude toward donation interacted less with the religious beliefs of the donor and next-of-kin than with their attitude toward doctors may be due to the perceived weaker inference in the latter case.

Discussion

The present study has examined the role of the attitudes of the donor, the next-of-kin, and the research subject toward organ donation on the subject's recommendation in various situations. Although the methodology admittedly deals with hypothetical situations, not real donor families in the midst of a traumatic decision, the data show some strong and interpretable consistencies with some implications for practice.

The most consistent result from this study is that the subjects weigh the explicitly stated wishes of the deceased far more than either their own attitudes or the wishes of the next-of-kin in making a recommendation about organ donation. Although their own attitudes and that of the next-of-kin play a minor role, it is largely overshadowed by the wishes of the potential donor if those wishes were unequivocally stated. If the donor's wishes vis-a-vis organ donation are not stated directly, however, the picture becomes less straightforward. Subjects try to infer what those wishes would be, using such information as the victim's religious beliefs or attitudes toward physicians. In such equivocal cases, however, the attitudes of the next-of-kin and the subjects themselves became more important.

The importance that subjects placed on respecting the stated wishes of the donor brings to mind some important related issues in the procurement system itself. The first of these concerns the issue of persons' rights to determine the means of disposal of their bodies. McIntyre et al. (1987) and Manninen and Evans (1985) found that subjects, signed donors and others alike, generally disagreed with the idea that the next-of-kin's approval should be necessary for organ removal even if the deceased has signed a donor card. Moreover, 71% of Manninen and Evans' (1985) subjects felt that the next-of-kin's possibly conflicting views on the matter should not be able to override the potential donor's wishes. The Uniform Anatomical Gift Act (UAGA) recognizes and legally supports the idea that a person has the right to dispose

of his or her body after death and that the next-of-kin has no legal right to veto such a decision (Childress, 1987; Lee & Kissner, 1986; Prottas, 1985; Peters, 1986; Silver, 1988). However, in practice, few physicians or organ procurement professionals will act solely upon the stated wishes of the deceased (e.g., a signed donor card), but rather the consent of relatives is routinely required. The reasons for this practice presumably are a concern for the feelings of the grieving family and the fears of litigation and the public perception of heavy-handed tactics by transplant teams if the next-of-kin's wishes are not respected.

The present research suggests that it is very important for people to know the wishes of the deceased in regard to organ donation. If these wishes are known, they are very likely to be respected, whatever the personal attitudes of the next-of-kin. They may even provide some small comfort, assuring the family that they are following the wishes of the deceased. When those wishes are not explicitly known, however, the persons deciding will try to infer what they might be, but the chance of their own attitudes coloring the decision are much greater. Thus signing a donor card or discussing the issues with one's family has an importance beyond the stated purpose in the UAGA. Research on personality and persuasion factors in appeals to sign an organ donor card thus has a new importance (Belk, 1990; Carducci, Deuser, Bauer, Large, & Ramaekers, 1990; Robbins, 1990; Skowronski, 1990).

References

- Belk, R. (1990). Me and thee versus mine and thine: How perceptions of the body influence organ donation and transplantation In J. Shanteau and R. J. Harris (Eds.), *Organ donation and transplantation: Psychological and behavioral factors* (pp. 139-149). Washington, DC: American Psychological Association.
- Carducci, B. J., Deuser, P. S., Bauer, A., Large, M., & Ramaekers, M. (1990). An application of the foot in the door technique to organ donation. *Journal of Business and Psychology*, 2, 245-249.
- Childress, J. F. (1987). Some moral connections between organ procurement and organ distribution. *Journal of Contemporary Health Law and Policy*, 3, 85-110.
- Gallup Organization, Inc. (1983). *Attitudes and opinions of the American public toward kidney donation*. New York: National Kidney Foundation.
- Harris, R. J., Jasper, J. D., Shanteau, J., & Smith, S. A. (1990). Organ donation consent decisions by the next-of-kin: An experimental simulation approach. In J. Shanteau and R. J. Harris (Eds.), *Organ donation and transplantation: Psychological and behavioral factors* (pp. 13-24). Washington, DC: American Psychological Association.

- Jasper, J. D., Harris, R. J., Lee, B. C., & Miller, K. E. (in press). Organ donation terminology: Are we communicating life or death? *Health Psychology*.
- Lee, P. P., & Kissner, P. (1986). Organ donation and the Uniform Anatomical Gift Act. *Surgery*, **100**(5), 867-875.
- Manninen, D., & Evans, R. (1985). Public attitudes and behavior regarding organ donation. *Journal of the American Medical Association*, **253**(21), 3111-3115.
- McIntyre, P. E., Barnett, M. A., Harris, R. J., Shanteau, J., Skowronski, J. J., & Klassen, M. L. (1987). Psychological factors influencing decisions to donate organs. *Advances in Consumer Research*, **14**, 331-334.
- Olbrisch, M. E. (1989). Psychology's contribution to relieving the donor organ shortage: Barriers from within. *American Psychologist*, **44**(1), 77-78.
- Overcast, T. D., Evans, R. W., Bowen, L. E., Hoe, M. M., & Livak, C. L. (1984). Problems in the identification of potential organ donors: Misconceptions and fallacies associated with donor cards. *Journal of the American Medical Association*, **251**(22), 1559-1563.
- Perkins, K. A. (1987). The shortage of cadaver donor organs for transplantation: Can psychology help? *American Psychologist*, **42**(1), 921-930.
- Peters, D. A. (1986). Protecting autonomy in organ procurement procedures: Some overlooked issues. *Milbank Memorial Fund Quarterly*, **64**(2), 241-270.
- Prottas, J. M. (1985). Organ procurement in Europe and the United States. *Milbank Memorial Fund Quarterly*, **63**(1), 94-126.
- Prottas, J., & Batten, H. L. (1988). Health professionals and hospital administrators in organ procurement: Attitudes, reservations, and their resolutions. *American Journal of Public Health*, **78**(6), 642-645.
- Robbins, R. A. (1990). Signing an organ donor card: Psychological factors. *Death Studies*, **14**, 219-229.
- Schwindt, R., & Vining, A. R. (1986). Proposal for a future delivery market for transplanted organs. *Journal of Health Politics, Policy and Law*, **11**(3), 483-500.
- Shanteau, J., & Harris, R. J. (1990) (Eds.). *Organ donation and transplantation: Psychological and behavioral factors*. Washington, DC: American Psychological Association.
- Silver, T. (1988). The case for a post-mortem organ draft and a proposed model organ draft act. *Boston University Law Review*, **68**, 681-728.
- Skowronski, J. J. (1990). Increasing the number of people who agree to donate organs: Can persuasion work? In J. Shanteau and R. J. Harris (Eds.), *Organ donation and transplantation: Psychological and behavioral factors* (pp. 122-135). Washington, DC: American Psychological Association.