
Why Not Donate Sperm? A Study of Potential Donors

Michael Emond

*Department of Psychiatry, Johns Hopkins, School of Medicine,
Baltimore, Maryland*

Joanna E. Scheib

*Department of Psychology, University of California, Davis,
Davis, California*

In a between-group study, men were much more likely to profess willingness to donate sperm if it would be used solely for research purposes (67% yes) than if it would be used for reproduction through the process of donor insemination (24%). Offered several reasons why one might be willing to be a sperm donor, men nominated “money” and “helping out a couple in need” most often and “the chance to produce children” least often, whereas “the knowledge that it might produce children that I may never meet” was the most popular of several proposed rationales for not donating. These results are discussed in light of the specificity of male sexual psychologies and the possible costs associated with sperm donation, within the more general framework of identifying the circumstances in which men report the willingness to donate sperm. © 1998 Elsevier Science Inc.

KEY WORDS: Sperm donor; Motivation; Donor insemination; Reproduction.

Donor insemination is an assisted reproductive procedure that women use to become pregnant when they do not have fertile male partners. In the majority of cases of donor insemination (DI), sperm is obtained from an anonymous male and placed, via syringe, in the upper vagina (i.e., intravaginal insemination) or directly into the uterus (i.e., intrauterine insemination) of a healthy, fertile woman. Unlike other assisted reproductive techniques, DI has relatively high success rates, with 45% to 70% of women becoming pregnant in nine cycle attempts (Achilles 1992; Ahmed Ebbiary et al. 1994; The Sperm Bank of Cal-

Acting Editor for this paper was Randy Thornhill, Department of Biology, University of New Mexico.

Received April 3, 1997; revised June 15, 1998.

Address reprint requests and correspondence to: Dr. Joanna Scheib, Department of Psychology, University of California, Davis, Davis, CA 95616, U.S.A. E-mail: jescheib@ucdavis.edu

ifornia 1994), resulting in upper estimates of 6,000 children born in Canada and 30,000 born in the U.S. every year (Achilles 1992; Shapiro et al. 1990). DI can be offered because some men are willing to donate their sperm. The question then arises: why and under what circumstance(s) are men willing to donate sperm?

A number of studies have asked sperm donors why they are willing to donate (e.g., Mahlstedt and Probasco 1991; Schover et al. 1992). Donors most commonly nominated the financial reason of monetary compensation or altruistic reasons, such as helping a couple in need. When the question arises as to whether money is necessary to obtain donors, results suggest that many would not donate without compensation (Cook and Golombok 1995; Daniels et al. 1996; Lui et al. 1995).

In the present study we addressed three reasons why men might be willing to donate sperm—for money, for use in fertility research, and to assist a woman in conceiving a child—and tested these ideas in a sample of undergraduate men, a typical group that sperm banks and fertility clinics target for recruitment of donors. We included reasons reported by sperm donors in previous studies (i.e., money and altruism, defined in those studies as helping someone in need) to allow us to compare results across studies as well as test which reasons most appealed to men when considering sperm donation. At a practical level, results obtained from our sample of potential donors, rather than actual sperm donors, might also provide insight that could assist with donor recruitment by DI programs. Rather than only asking subjects to choose reasons why they might be willing to donate, we used a between-subjects experimental design first, in which each subject was given one of four possible scenarios with varying benefits (i.e., money, helping with research, or conceiving a child) and asked whether he would be willing to donate sperm. The relative proportion of “yes” responses across scenarios then would indicate which scenarios and potential benefits contained therein most appealed to potential sperm donors.

Although our primary goal was to identify the circumstances under which men might donate sperm, the issue also arose as to whether men find reproduction in itself a positive aspect of sperm donation. In the majority of DI programs, donors are anonymous and have neither parental rights nor obligations to resultant offspring, so donating sperm could represent an opportunity for obligation-free reproduction. One hypothesis, then, is that men will be more receptive to the idea of donating sperm in the scenarios where sperm would be used toward conceiving a child. However, an alternative hypothesis is that the opportunity for reproduction would have little influence on men’s willingness to donate, because the connection between DI and reproduction may be too far removed and the mechanisms underlying such an association might not be geared to this context. The present study thus raised questions about whether reproduction was perceived as a benefit in sperm donation, within the more general framework of identifying circumstances in which men are willing to donate sperm.

MATERIALS AND METHODS

Male students in undergraduate psychology classes were invited to complete a brief survey on attitudes concerning sperm donation, and their responses would be any-

mous. One hundred and one complied (age range 18–37 years), whereas approximately seven declined. None had ever donated sperm. Four versions of the survey, differing only in the scenario, were distributed at random.

The four versions represented a 2×2 design: reproductive or nonreproductive prospects \times financial incentive or no financial incentive. Each subject was given only one of the four possible versions and asked whether he would be willing to donate sperm. All subjects received the information that a sperm donation program had been set up to allow male volunteers to donate their sperm for the purposes of fertility research and inseminating women who for various reasons did not have access to a fertile partner (i.e., two possible forms of altruism). The scenarios differed as follows. In the first scenario, subjects were asked whether they would be willing to donate sperm if they were paid \$45 (i.e., financial incentive) and the sperm would be used to inseminate a woman and result in the conception of a child (i.e., reproductive prospect). Thus, potential benefits included money and producing one's own child. In the second scenario, the conditions also included a \$45 payment, but the sperm would be used for fertility research (i.e., financial benefit only, no reproductive prospect). In the third scenario, the sperm would be used to inseminate a woman and result in the conception of a child (no financial incentive, reproductive prospect only). In the fourth and last scenario, the sperm would be used for fertility research (no financial incentive, no reproductive prospect).

Following the experimental scenarios, all subjects were asked "Have you ever donated sperm?" and "Have you ever donated blood?" They then were asked to tick scales indicating their opinions on the following items (anchors and scale in parentheses):

Do you think people should be paid for donating blood? (Disagree—Agree, 6-point scale)
 Do you think people should be paid for donating sperm? (Disagree—Agree, 6-point scale)
 What is your opinion of men who donate sperm? (Sleazy—Admirable, 7-point scale)
 What is your opinion of men who donate sperm? (Selfish—Generous, 7-point scale)
 How would you describe people who donate blood? (Selfish—Generous, 7-point scale)
 Is sperm donation like donating blood? (Disagree—Agree, 6-point scale)

Once these two sections were fully completed, all subjects were asked to read a list of four reasons for donating sperm and four reasons for not doing so, and to check any that applied to them, regardless of what their initial answer had been concerning their willingness to donate. Subjects could also nominate their own reasons under the option "other."

Finally, subjects were asked to complete the Sociosexual Orientation Inventory (SOI; Simpson and Gangestad 1991), in which higher scores indicate greater willingness to engage in sexual relations without commitment or other cues of emotional bonding. This was done to determine if there was a relationship between willingness to donate and a man's willingness to engage in sex.

RESULTS

Altogether, 46 of the 101 men said they would donate sperm (Table 1). The distribution of "yes" responses varied across conditions. Relative to being used for fertility

Table 1. Expressed Willingness to Donate Sperm in Relation to the Presence or Absence of a \$45 Financial Incentive, and Whether Sperm Would be Used for Reproduction Through Donor Insemination (Reproductive Prospect) or for Research (No Reproductive Prospect)

	Reproductive prospect ("result in the conception of a child")	No reproductive prospect ("used solely for fertility research")
Paid \$45	33% (8/24)	65% (15/23)
Not paid	15% (4/26)	68% (19/28)

Number of subjects who answered yes over the total number of subjects per condition is given in parentheses.

research only, the prospect that one's sperm would be used to sire a child was significantly deterring (conditions were collapsed across the presence and absence of financial incentive): 12 of 50 men (24%) in the reproductive prospect groups said they would donate versus 34 of 51 (67%) in the fertility research groups (Chi-square = 18.54, $p < .001$). Collapsing across reproductive and research conditions, financial incentive had no apparent effect: 23 of 47 men (49%) in the paid conditions said they would donate versus 23 of 54 (43%) in the unpaid groups. However, within the reproductive condition only (scenarios 1 and 3), twice as many men were willing to donate when there was a financial incentive as compared to when there was none (33% vs. 15%, respectively).

When asked to check any reasons for donating sperm (after subjects responded to the scenario), "helping out a couple in need" and "money" were most frequently endorsed (ticked by 56% and 54% of subjects, respectively), followed by "contributing to the advancement of science" (40%). "The chance to produce children" was the least often ticked (13%).

When asked to check any reasons for not donating, "the knowledge that it might produce children that I may never meet" was most frequently chosen (ticked by 51% of subjects), followed by "never considered it before" (42%), "embarrassment" (32%), and "inconvenience" (17%). Under "other," the reason "immoral" was given by 7% of the subjects.

Men who said they would donate differed from those who said they would not in their responses to two attitude questions: they considered sperm donors more "admirable" (less "sleazy") ("donor" rating = 4.5; "nondonor" rating = 3.5; $t = 3.7$, $p < .001$), and they deemed sperm and blood donation more similar ("donor" rating = 2.6; "nondonor" rating = 1.9; $t = 3.00$; $p < .003$), where overall (i.e., data for all subjects) blood donors were deemed more generous (mean = 6.4) than sperm donors (mean = 4.3; $t = 12.9$, $p < .0001$).

"Donors" and "nondonors" did not differ in their SOI scores.

DISCUSSION

Our primary goal was to identify some of the circumstances under which men report the willingness to donate sperm. Following this, a more general question arose as to whether reproduction acted as an incentive for men to be sperm donors.

In response to one of four possible scenarios with variable benefits, the circumstance in which men most often said they were willing to donate was when their

sperm would be used for research purposes only and, in this case, money did not seem to serve as an incentive to participate. A smaller proportion of men said they were willing to donate when their sperm would be used toward the conception of a child (a reproductive benefit) and they would be paid (financial incentive). Finally, the scenario where no payment was involved and their sperm would be used toward the conception of a child (reproductive benefit only) produced the smallest proportion of men willing to donate, suggesting that this was the least attractive circumstance in which to donate. Overall this distribution of responses suggests that: (1) regardless of financial benefit, nonreproductive contexts were more likely to elicit the willingness to donate sperm than reproductive contexts; and (2) when sperm donation would result in the conception of a child, money acted as an incentive to donate. These results are consistent with the finding that sperm donors more often have to be recruited to, rather than turned away from, programs, and that programs have greater success in obtaining donors when they provide financial payment.

The current results provided little support for the hypothesis that men perceived reproductive opportunity as a benefit in the context of sperm donation. Instead, the results suggested the opposite. Relative to being used for research purposes only, men were less likely to be willing to donate if their sperm were to be used for reproduction. How might one account for this result? As briefly addressed in the introduction, it is possible that the connection between donating sperm at a clinic and producing children may be too abstract to act as motivation to donate. Underlying such a possibility is the likelihood that the proximal mechanisms underlying behavior that eventually results in producing children are designed to respond to more immediate cues for which one could develop positive associations and feelings of reward. That is, one would expect psychologies to be designed to respond to cues typically found in contexts that ultimately result in reproduction. Although we have yet to characterize these contexts adequately, men are expected to be attracted to cues of fertility of women, for example, and to experience sensations of reward in response to sexual intercourse, when the benefits outweigh the associated costs. The lack of positive responses to the opportunity to reproduce in the context of DI may be partly attributable to the atypical association between masturbating on demand and producing a child. Many of the typical cues associated with the opportunity for sexual intercourse (and distally, reproducing) may be lacking from the context of DI. If such an argument holds, then it also begins to inform us about the specificity of male sexual psychologies. It suggests that the cues found in the anticipated context of sperm donation used for conception are not sufficient and/or similar enough to cues found in typical contexts in which reproduction occurs. As the current study provided only a preliminary examination of such questions, further studies are needed to examine the specificity of the mechanisms that comprise male sexual psychologies in terms of decision rules, relevant cues, and activation thresholds (for general discussions of the specificity of psychological mechanisms, see, for example, Symons 1995 and Turke 1990a, 1990b).

Previous studies suggested that altruism plays a role in men's decisions to donate. In the current study we included two possible forms of altruism: helping with research and helping someone conceive a child. Altruism, in the form of helping

with research, may have contributed to the greater proportion of men willing to donate in the research relative to the reproductive scenario, whereas altruism, in the form of helping someone conceive a child, appeared to have been less of a motivator in the reproductive scenarios, especially in the absence of financial benefits. This may be due to the possibility that men do not perceive helping someone conceive as altruistic, consistent with our finding that sperm donors were deemed less generous than blood donors. Another possibility is that regardless of the instructions we provided, and indeed of what DI programs provide, men may never feel entirely confident that they will be free of any costs or obligations. These costs might include possible obligations to resultant children, or concern negative perceptions of donating sperm. On the other end of the spectrum, it is also possible that men might not be comfortable with having children with whom they would have no contact. These factors, in addition to the atypical association between donating sperm and reproduction, may have contributed to the smaller proportions of men willing to donate sperm for reproductive rather than research purposes. Such possibilities need to be addressed more extensively in future studies. It is worth noting, however, that altruism may not be entirely absent from men's motivations to donate, as at least one DI program exists that does not pay its donors (e.g., Daniels et al. 1996). It is from donors in such programs, as well as from further experimental work, that we will better understand donor motivations and eventually, and perhaps most interestingly, individual variation in the propensity to be a sperm donor.

We thank M. Daly, D. Symons, R. Thornhill, and P. Turke for helpful comments on earlier versions of this manuscript. This study was supported by grants from the Natural Sciences & Engineering Research Council of Canada to Martin Daly and from the Social Sciences & Humanities Research Council of Canada to Joanna Scheib.

REFERENCES

- Achilles, R. Donor insemination: an overview. Ottawa: Study prepared for the Royal Commission on New Reproductive Technologies, 1992.
- Ahmed Ebbiary, N., Martin, K., Gibbs, A., D'Arcy, Y., Afnan, M., and Newton, J.R. Spontaneous ovulatory cycle donor insemination programme: prognostic indicators of a successful pregnancy. *Human Reproduction* 9:1852–1858, 1994.
- Cook, R., and Golombok, S. A Survey of semen donation: Phase II—the view of the donors. *Human Reproduction* 10:951–959, 1995.
- Daniels, K.R., Curson, R., and Lewis, G.M. Semen donor recruitment: a study of donors in two clinics. *Human Reproduction* 11:746–751, 1996.
- Lui, S.C., Weaver, S.M., Robinson, J., Debono, M., Nieland, M., Killick, S.R., and Hay, D.M. A survey of semen donor attitudes. *Human Reproduction* 10:234–238, 1995.
- Mahlstedt, P.P., and Probasco, K.A. Sperm donors: their attitudes toward providing medical and psychosocial information for recipient couples and donor offspring. *Fertility and Sterility* 56:747–753, 1991.
- Schover, L.R., Rothmann, S.A., and Collins, R.L. The personality and motivation of semen donors: a comparison with oocyte donors. *Human Reproduction* 7:575–579, 1992.
- Shapiro, S., Saphire, D.G., and Stone, W.H. Changes in American A.I.D. practice during the past decade. *International Journal of Fertility* 35:284–291, 1990.

- Simpson, J.A., and Gangestad, S.W. Individual differences in sociosexuality: evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology* 60:870–883, 1991.
- Symons, D. Beauty is in the adaptation of the beholder: the evolutionary psychology of human female sexual attractiveness. In *Sexual Nature, Sexual Culture*, P.R. Abramson and S.D. Pinkerton (Eds.). Chicago: Chicago University Press, 1995, pp. 80–119.
- The Sperm Bank of California. Cumulative Pregnancy Rate Table:1993–1994.
- Turke, P.W. Which humans behave adaptively, and why does it matter? *Ethology and Sociobiology* 11: 305–339, 1990a.
- Turke, P.W. Just do it. *Ethology and Sociobiology* 11:445–463, 1990b.