

Amounts Spent on Engagement Rings Reflect Aspects of Male and Female Mate Quality

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Published online: 27 September 2007
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Abstract Previous research has shown that the qualities of nuptial gifts among nonhumans and marriage-related property transfers in human societies such as bridewealth and dowry covary with aspects of mate quality. This article explores this issue for another type of marriage-related property transfer: engagement rings. We obtained data on engagement ring costs and other variables through a mail survey sent to recently married individuals living in the American Midwest. This article focuses on survey responses regarding rings that were purchased by men acting alone and using only their own funds who then presented the rings while making surprise proposals of marriage ($n=127$). Men marrying younger women spent more on rings, as did men who earned more money and whose fiancées earned more money. These findings suggest that the amounts spent on engagement rings, like bridewealth and dowry payments in other societies, reflect aspects of both male and female mate quality.

Keywords Courtship · Mating · Engagement rings · Marriage · Nuptial gifts · Marriage transactions

Nuptial gifts and courtship feeding can be found among insects (Vahed 1998), other invertebrates (e.g., Huber 2005), and some vertebrates (e.g., Mougeot et al. 2006). The quality of such gifts has been shown in some cases to correlate with aspects of male mate quality (e.g., immunocompetence: Fedorka et al. 2005). Roughly analogous to such gifts are the many types of property transfers that occur before, during, and after marriage across human societies. These, too, have been demonstrated to correlate with aspects of both male and female mate quality. For example, men among the agropastoralist Kipsigis of Kenya pay higher bridewealths when marrying younger women (Borgerhoff Mulder 1988), and the cross-cultural

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distribution of dowry has been found to reflect competition among females for access to wealthy males (Gaulin and Boster 1990).

Wedding rings have been known since ancient times, and engagement rings were given as long ago as the Middle Ages (Brinig 1990), but the latter have become popular only relatively recently. Rothman (1984:161) traces the beginnings of the engagement ring custom in the United States to the 1840s, though at that time they were given to men as well as to women. The current pattern whereby the man buys an expensive ring, usually including a diamond, to give to his fiancée when they become engaged became widespread only in the twentieth century. Brinig (1990; see also Tushnet 1998) argues that this was the result of marital law reforms that swept the United States between 1935 and 1945. Before that time, it was possible in most states to sue for damages in the event of a broken engagement. Brinig argues that the elimination of such breach-of-promise actions created a demand for another bonding device, and she suggests that diamond engagement rings filled that need. Diamond engagement rings have remained popular in the United States since that time, with around three-quarters of all first-time brides receiving them even when premarital cohabitation rates increased in the 1960s and 1970s (Brinig 1990; Rothman 1984:310).

Although others have speculated that engagement ring costs may correlate with such aspects of mate quality as commitment (Camerer 1988) and resource control (Miller 2000), no systematic research from an evolutionary perspective has yet been conducted on them. This article presents findings from a project designed to help close this gap in our understanding of marriage-related property transfers. Sexual selection theory (Darwin 1871; Trivers 1972) leads straightforwardly to the broad prediction that amounts spent on rings will reflect aspects of male and female mate quality. More specifically, we predict that the amounts men spend on engagement rings will increase with their own incomes and those of their fiancées and decrease with increasing female age. Many previous studies (e.g., Pawłowski and Dunbar 1999) have found male income to be a major component of mate preferences, a finding that conforms to the evolutionary hypothesis that females seek mates who are willing and able to invest in offspring. Likewise, female youth has been predicted (Kenrick and Keefe 1992) and found (e.g., Borgerhoff Mulder 1988; Buunk et al. 2001) to be a component of male mate preferences, which makes evolutionary theoretical sense in light of female age's relationship to reproductive potential. There is less theory and evidence regarding the impact of female resource control on male mate preferences, but Gaulin and Boster's (1990) study of dowry shows that male as well as female mate choice can be influenced by a prospective mate's control of resources.

Methods

We sent questionnaires to 1,000 couples married between June and November, 2001, in Franklin County, Ohio. The narrow time frame enables us to disregard economic, social, and cultural changes that take place over longer periods. Franklin County has a total population of 1.1 million people and maintains its marriage license records online (<http://www.co.franklin.oh.us/probate/>). We sent only one survey per household so that each would provide information about a different marriage. The

Table 1 Descriptive statistics

	Mean	Median	SD	Range
Cost of ring (\$)	3,531.72	3,000	3,262.76	0–20,000
Man's annual income (\$)	41,858.20	34,000	49,231.53	0–500,000
Woman's annual income (\$)	28,667.48	26,000	19,602.15	0–80,000
Man's age	29.4	25.9	10.7	18–90
Woman's age	27.0	24.1	9.6	16–82

Income and age figures are for the time the proposal of marriage was made.

questionnaire elicited information about the age, income, and marital status of the individual responding and of his or her spouse as well as information about their courtship, their engagement, the engagement ring if one was given, and their wedding ceremony. Surveys were accompanied by stamped, self-addressed envelopes for anonymous return; 255 surveys were returned by the post office as undeliverable and 256 were returned by recipients, yielding a response rate of 34%. This compares favorably with the 20% or lower response rates typical for unsolicited, anonymous mail surveys that offer minimal compensation and that involve no re-mailings or other reminders (Blumberg et al. 1974; Bourque and Fielder 1995:15). Of the surveys, 33% were returned by males and 67% by females.

Results

Some couples shopped for their engagement rings together or used the wife's or common funds to cover some or all of the cost of the ring. Because our interest in rings is grounded in the analogy with nuptial gifts among nonhumans, our analysis here is limited to marriages in which either no ring was given ($n=13$) or in which the ring was given by the man at the time he made a surprise proposal of marriage ($n=114$). Table 1 provides descriptive statistics for this group.

Table 2 presents the results of a linear regression model with the cost of the ring in dollars as the dependent variable and male income, female income, and female age, all at the time the proposal was made, as independent variables. All three independent variables have statistically significant effects, and together they explain 36% of the variance in ring cost. These overall results are replicated in subsamples based on the sex of the respondent, making it unlikely that the patterns observed in

Table 2 Multiple linear regression model

Independent variable	Standardized regression coefficient	<i>t</i>
Men's income	0.509	6.221*
Women's income	0.305	3.432**
Female age	−0.318	−3.662*

The dependent variable is the cost of the ring.

* $p=0$

** $p=0.001$

the whole sample reflect female ignorance about male income or actual ring costs or male ignorance about female income.

Discussion

Like nuptial gifts among nonhumans and previously studied marriage-related property transfers in human societies, amounts spent on engagement rings reflect aspects of the mate quality of both the giver and the recipient in ways that conform to predictions derived from sexual selection theory. Specifically, younger females and females with higher incomes are given more expensive rings, and males with higher incomes give more expensive rings.

The effect of female youth on ring cost is in line with many other studies of the mate preferences of human males and with expectations derived from sexual selection theory regarding those preferences (see Schmitt 2005 for a recent review). The effect of female income on ring cost suggests that like males in societies with dowry (Gaulin and Boster 1990), males in our sample see female resource control as a component of female mate quality. We do not know, however, whether males are responding to the income itself, characteristics associated with income (e.g., a willingness and capacity to work hard), or some combination of the two.

Male income has the strongest effect on ring cost. Although this is not surprising in light of a general correlation between men's incomes and the amounts they spend on consumer goods, it is still an important finding. While the cost of a ring might tell a woman little that she does not already know about a man's income, the fit between a man's overall spending habits and the cost of an engagement ring he offers might give a woman valuable information about his willingness to commit to the relationship and invest in her and her offspring.

Because our sample came from marriage license records, it is limited to cases in which the proposal of marriage was accepted. Future studies of engagement ring expenditures should try to include cases in which men and women proposed marriage and were turned down, sometimes buying rings and sometimes not. Although the brevity of our questionnaire may have had its intended effect of increasing our response rate, it also limited us to only two indicators of mate quality: income and age. Future studies should seek to include more indicators of mate quality, such as waist-hip ratio (Singh 1993), fluctuating asymmetry (Van Valen 1962), facial masculinity and femininity (Perrett et al. 1998), sociosexuality (Simpson and Gangestad 1991), and other aspects of behavior and personality.

Acknowledgements Funding for this project was provided by the Center for Human Evolutionary Studies and the Department of Anthropology at Rutgers University.

References

- Blumberg, H. H., Fuller, C., & Hare, A. P. (1974). Response rates in postal surveys. *Public Opinion Quarterly*, 38, 113–123.
- Borgerhoff Mulder, M. (1988). Kipsigis bridewealth payments. In L. L. Betzig, M. Borgerhoff Mulder, & P. W. Turke (Eds.), *Human reproductive behaviour* (pp. 65–82). Cambridge: Cambridge University Press.

- Bourque, L. B., & Fielder, E. P. (1995). *How to conduct self-administered and mail surveys*. Thousand Oaks, CA: Sage.
- Brinig, M. F. (1990). Rings and promises. *Journal of Law, Economics, and Organization*, 6, 203–215.
- Buunk, B. P., Dijkstra, P., Kenrick, D. T., & Warntjes, A. (2001). Age preferences for mates as related to gender, own age, and involvement level. *Evolution and Human Behavior*, 22, 241–250.
- Camerer, C. (1988). Gifts as economic signals and social symbols. *American Journal of Sociology*, 94, s180–s214.
- Fedorka, K. M., Zuk, M., & Mousseau, T. A. (2005). Natural selection drives the link between male immune function and reproductive potential. *Canadian Journal of Zoology*, 83, 1012–1014.
- Darwin, C. R. (1871). *The descent of man and selection in relation to sex*. New York: Random House.
- Gaulin, S. J. C., & Boster, J. S. (1990). Dowry as female competition. *American Anthropologist*, 92, 994–1005.
- Huber, B. A. (2005). Sexual selection research on spiders: Progress and biases. *Biology Review*, 80, 363–385.
- Kenrick, D. T., & Keefe, R. C. (1992). Age preferences in mates reflect sex differences in reproductive strategies. *Behavioral and Brain Sciences*, 15, 75–133.
- Miller, G. (2000). *The mating mind*. New York: Doubleday.
- Mougeot, F., Arroyo, B. E., & Bretagnolle, V. (2006). Paternity assurance responses to first-year and adult male territorial intrusions in a courtship-feeding raptor. *Animal Behaviour*, 71, 101–108.
- Pawłowski, B., & Dunbar, R. I. M. (1999). Impact of market value on human mate choice decisions. *Proceedings of the Royal Society of London, Series B*, 266, 281–285.
- Perrett, D. I., Lee, K., Penton-Voak, I., Burt, D. M., Rowland, D., Yoshikawa, S., et al. (1998). Sexual dimorphism and facial attractiveness. *Nature*, 394, 884–886.
- Rothman, E. K. (1984). *Hands and hearts: A history of courtship in America*. New York: Basic Books.
- Schmitt, D. P. (2005). Fundamentals of human mating strategies. In D. M. Buss (Ed.), *Handbook of human evolutionary psychology* (pp. 258–291). Hoboken, NJ: Wiley.
- Simpson, J. A., & Gangestad, S. W. (1991). Individual differences in sociosexuality: Evidence for convergent and discriminant validity. *Journal of Personality and Social Psychology*, 60, 870–883.
- Singh, D. (1993). Waist-to-hip ratio (WHR): A defining morphological feature of health and female attractiveness. *Journal of Personality and Social Psychology*, 65, 293–307.
- Trivers, R. L. (1972). Parental investment and sexual selection. In B. Campbell (Ed.), *Sexual selection and the descent of man, 1871–1971* (pp. 136–179). Chicago: Aldine.
- Tushnet, R. (1998). Rules of engagement. *Yale Law Journal*, 107, 2583–2618.
- Vahed, K. (1998). The function of nuptial feeding in insects: A review of empirical studies. *Biology Review*, 73, 43–78.
- Van Valen, L. (1962). A study of fluctuating asymmetry. *Evolution*, 16, 125–142.

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