MEN, WOMEN AND RISK AVERSION: EXPERIMENTAL EVIDENCE

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Abstract

This paper reviews the results from experimental measures of risk aversion for evidence of systematic differences in the behavior of men and women. In most studies, women are found to be more averse to risk than men. Studies with contextual frames show less consistent results.

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Whether men and women systematically differ in their responses to risk is an important economic question. If women are more sensitive to risk than men, this will be reflected in all aspects of their decision making, including choice of profession (and so earnings), investment decisions, and what products to buy. Several recent studies investigate this difference directly.

Most experiments that investigate preferences over risky choices deal with the question of whether people make choices that are consistent with expected utility maximization. (See, for example, Starmer, 2000). This contribution focuses instead on the narrower issue of differences between women and men in attitudes towards risk in the context of experiments involving valuation of gambles and /or choices among gambles.

By way of background, numerous studies in sociology and psychology support the hypothesis that women and men respond to risk differently. Studies have found sex differences in: the perception of risk associated with alcohol and drug use (Spigner, Hawkins, and Loren, 1993); the perception of the catastrophic potential of nuclear war, technology, radioactive waste, industrial hazards, and environmental degradation (Silverman and Kumka, 1987; Cutter, Tiefenbacher, and Solecki, 1992; Macgregor, Slovic, Mason, Detweiler, Binney, and Dodd, 1994; McStay and Dunlap, 1983; Stallen and Tomas, 1988; and Flynn, Slovic, and Mertz, 1994); and the perceived risk associated with various recreational and social activities (Boverie, Scheuffele, and Raymond, 1995). Evidence also indicates that women are less likely than men to engage in risky behavior such as illicit drug use and criminal activities.[1] However, it is important to note that risk attitudes tend to vary over environments, with low levels of correlation across tasks, measures, and context.[2]

Laboratory tests of differences in behavior under risk are relatively recent. Studies have employed a variety of instruments, including both abstract gambling experiments and experiments involving risky decisions within contextual environments such as investment and insurance. Must have significant financial stakes. Our discussion below focuses on experiments (with hypothetical or real stakes) that measure differences between men and women in risk

[1] See, for example, Cooperstock and Parnell (1982), Daly and Wilson (1988), Gottfredson and Hirschi (1990), Kandel and Logan (1984), and Wilson and Herrnstein (1985).

2 See Slovic (1964) for an early study that makes this point, and Weber, Blais and Betz (2002) for a recent study that develops and tests survey measures of risk attitudes across environments.

attitudes using either choices among financially risky alternatives, or valuations of risky payoffs.[3] We divide the following discussion into abstract gamble experiments and experiments with context, incorporating studies of both risk aversion and (weak) ambiguity aversion.

Abstract Gamble Experiments

In general, most results from abstract gamble experiments indicate that women are more risk averse than men. Levin, Snyder and Chapman (1988) [LSC] and Hartog, Ferrer-i-Carbonell and Jonker (2002) [HFJ] present their subjects with hypothetical gambles. Brinig (1995) conducts experiments with low-stake gambles (candy). Schubert, et al. (1999) [SGBB], Moore and Eckel (2003) [ME], Holt and Laury (2002) [HL]; Eckel and Grossman (2002a and b) [EG1 and EG2]; and Harbaugh, Krause and Vesterlund (2002) [HKV] incorporate gambles with salient stakes. The gambles in LSC, HFJ, Brinig, HL, and EG all fall in the gain domain; SGBB, ME and HKV have gambles in both the gain and the loss domain. See Table 1 for a summary of results.

LSC asked subjects (110 college students) to indicate whether or not they were willing to take each of 18 different gambles. The gambles varied in initial investment, amount to be won, level of probability, and gain/loss framing. They used, as their primary dependent variable, the proportion of gambles a subject was willing to play. They report a significant difference in the mean proportion of "yes" responses for men and women. Consistent with other evidence, both men and women were more willing to accept gambles the greater was the amount spent on gambling during the past year. Finally, the LSC study finds that framing significantly affects men's choices, but not women's.

In three separate surveys, HFJ elicit hypothetical willingness to pay for a series of high-stakes lotteries. The number of respondents to the surveys is large: 2011, 1599, and 17097 persons. From the answers, they estimate the risk aversion parameter of a utility function for each respondent. This parameter is then regressed on a number of individual characteristics. In all three studies, they find a significant (and substantial) coefficient on sex, with women's estimated parameter 10 to 30 percent larger than men's.

Brinig gave her subjects (300 volunteers from an elementary school, a high school, and a

[3] Note we do not address the issue of risk perception, but rather focus on behavioral measures of risk aversion. A person may be more risk averse because he perceives that a particular situation is "riskier", or because he prefers less risk given a level of perceived risk. See Blais and Weber (2001) for a discussion of gender differences in risk perceptions across domains.

center for legal and graduate education) a choice of one of three gambles, all of which consisted of drawing a winning ball from one of three urns. One urn provided a 90 percent chance of winning a "very small" prize; a second urn provided a 20 percent chance of winning a "slightly larger" prize, and a third urn provided a 5 percent chance of winning a "very large" prize (in all three cases, the prize to be won consisted of candy). Although Brinig finds no evidence of a sex difference in choice, when sex is interacted with age, it becomes a significant predictor of risk-taking behavior. Males exhibit a greater preference for risk from the onset of adolescence to approximately the mid-forties. In her study, the difference in risk preferences reached its peak at about age 30. As Brinig notes, this finding is "consistent with the sociobiologists' hypothesis that men are relatively more risk-loving during the period in which they are trying to attract mates; while women tend to be more risk-averse during their child-bearing years."

The HKV study also considers both sex and age differences in risk aversion. They present subjects (234 total participants including children, teenagers, college students, and adults) with 14 different choices between a certain outcome and a lottery. Their procedure is designed to be especially user-friendly for children, and uses images of stacks of coins compared to spinners with colored areas representing different probabilities. Potential earnings vary directly with age. One of the 14 choices is selected at random to determine a subject's earnings. Seven of the choices are in the gain domain and seven were in the loss domain. To measure risk aversion, sets of three choices are presented that contain the same gamble, but the certainty option varies to be less, equal, or more than the gamble's expected value. Contrary to Brinig, HKV find neither consistent nor significant evidence of a sex difference in risk aversion. The sex variable, either by itself or interacted with age, is consistently insignificant.

Subjects in the SGBB study (73 college students) are presented with four choices between certain payoffs and risky lotteries. Like HFJ, SGBB elicits certainty equivalents for each of four lotteries. However, she uses a Becker-Degroot-Marshcak incentive-compatible procedure. This procedure has come to be a standard for eliciting preferences, though its difficulty may confuse subjects (e.g., see Kachelmeier and Shehata, 1992; Plott and Zeiler, 2002). In addition, this procedure has been criticized by Harrison (1992) and Harrison and Rutstrom (2002) because of distortions introduced by the low cost of making mistakes in valuing gambles, especially those with a low probability of paying off.

Two of the lotteries are presented as potential gains from an initial endowment, while the other two lotteries are presented as potential losses from an initial endowment. Consistent with the other abstract gamble studies, SGBB find women more risk averse in the gain-domain frame, though only marginally so (the regression coefficient for the female dummy variable is negative and significant at the 10 percent level). For the loss-domain gambles, however, this result is reversed; women are significantly more risk-prone than men (the regression coefficient for the female dummy variable is negative and significant at the 5 percent level).

SGBB also elicit subjects' (73 college students) certainty equivalents for a series of lotteries and frame the lotteries as both gains and losses. ME introduce an added complexity by incorporating into the lotteries "weak ambiguity" in the level of risk, the payoff, and both the level of risk and payoff.[4] A given lottery might encompass a known risk and a known payoff; ambiguous risk and known payoff; known risk and ambiguous payoff; ambiguous risk and payoff. ME report regression results that indicate no significant sex difference in aversion to risk and/or ambiguity in the gain-domain gambles. However, consistent with SGBB, they report that women subjects are significantly more risk prone than men for the loss-domain gambles. Women are also more ambiguity seeking than men for gambles involving losses. See Table 2 for a summary of ambiguity results.

HL ask their subjects (212 college students) to make ten choices between paired lotteries (i.e. paired in terms of the probabilities of two possible outcomes occurring). For the low-risk lottery the potential payoffs differ only slightly; for the higher-risk lottery the potential payoffs differ more widely. A subject's degree of risk aversion was inferred from the point at which he switched from preferring the low-risk lottery to preferring the high-risk lottery. Finally, to test if a subject's level of risk aversion changed as the lottery stakes increased, subjects made choices for both low-payoff and high-payoff paired lottery treatments.[5] HL report mixed results regarding a sex difference in risk aversion. Considering only the low-payoff decisions, HL find that women are slightly, but significantly, more risk averse than men. When considering the high-payoff decisions, however, HL find no sex difference. Faced with the higher potential

[4] Weak ambiguity consists of giving subjects a range of probabilities or payoffs instead of a known probability or payoff. For example, instead of a 10 percent probability of winning $10, subjects might be presented with a 5 - 15 percent chance of winning $10, or a 10 percent chance of winning $0-$20. These gambles are just compound lotteries.

[5] To ensure that the earnings from the low-payoff lottery treatment (for which subjects first made decisions) did not bias the decisions in the high-payoff lottery treatment, subjects had to agree to forgo their earnings from the low-payoff lottery to be permitted to participate in the high-payoff lottery.

payoffs, men's relative taste for risk disappears. Harrison, et al., (2003) replicate their finding correcting for order effects and find no significant sex difference.

EG1 present subjects (148 college students) with five gambles and ask them to choose which of the five they wish to play. All decisions are framed as simple gambles with two alternative, equally probable, payoffs. The gambles include one sure thing with the remaining four increasing (linearly) in expected payoff and risk (measured by the standard deviation of expected payoff). Their design includes a baseline Abstract Gamble with losses and a No-Loss treatment: in the treatment with losses, subjects are paid $6 for completing a survey, and the $6 is then subject to loss; in the No-Loss treatment all payoffs are increased by $6 so that the lowest possible payoff is zero.

EG1 report that for both environments there is a significant sex difference in risk aversion. The mean choice by men exceeds the mean choice by women: men's overall mean gamble choice was 3.76 versus 3.14 for women in the abstract frame with losses; scaling up the payoff produces mean gamble choices of 3.63 and 2.95. A means test rejects the null hypothesis of no differences in mean gamble choice by sex for the combined data ($t = 3.90$, p-value < 0.001). They find no significant treatment effects; men are significantly more risk prone than women in both treatments (Abstract $t = 3.32$, p-value < 0.001, and No Loss $t = 1.94$, p-value < 0.03). Ordered Probit regression analysis confirmed these results.[6]

Contextual Environment Experiments

While the evidence from abstract gamble experiments suggests greater risk aversion by women, the evidence from experiments with a contextual environment is less conclusive. This heterogeneity in results is consistent with results from psychology, which tend to show differences in risk attitudes across environments for a given subject (Weber, et al, 2002). ME, EG, Powell and Ansic (1997) [PA], and Levy, et al. (1999) [LEC] offer results suggestive of differential attitudes towards risk. Gysler, Kruse, and Schubert (2002) [GKS] report results

[6] In addition to the issue of sex differences in risk preferences, EG1 and EG2 consider whether sex is taken to be a signal of risk preference. Each subject is asked to predict the gamble choice of each of the other players in her session. The only information a subject has on which to base a prediction is the set of visual clues provided by observing another. To encourage subjects to make their best predictions, subjects received $1 for every correct prediction they made. Consistent with actual gamble choices, in EG2 we show that men were predicted to be less risk-averse than women by both women and men. The mean prediction by men for men of 3.33 is significantly greater than their mean prediction of 2.48 for women ($t = 13.73$, p-value < 0.001). Women predicted a mean gamble of 3.26 for men but only 2.61 for women, also a significant difference ($t = 11.17$, p-value < 0.001).

suggesting a complex relationship between financial risk and gender. SGBB report results indicating no difference in risk attitudes, as do Kruse and Thompson (2003).

In addition to their abstract gamble treatments, SGBB, ME, and EG conducted contextual environment experiments. SGBB and ME framed their lotteries as investment decisions (gain domain) and as insurance decisions (loss domain). Placed in a contextual environment, SGBB's subjects (68 college students) exhibited no evidence of systematic or significant differences in risk attitudes. The coefficients for the female dummy variables in the regression analysis, while negative (indicating greater female risk aversion), are insignificantly different from zero.

ME, on the other hand, report mixed evidence of significant differences in risk attitudes between their male and female subjects (76). For the investment (gain domain) gambles, women are significantly more risk averse than men, as well as significantly more averse to weak ambiguity. This difference reverses in the loss domain, when the gambles are framed as insurance decisions, with women more risk-seeking than men. ME report no significant differences in ambiguity aversion in the insurance frame.

Schubert, et al. (2000) [SGBB2], in a follow up to their 1999 study, test for sex differences in ambiguity aversion (see Table 2). SGBB2 modified their investment and insurance lotteries to introduce ambiguity. In addition to the original, no-ambiguity frame, they included a "weak" ambiguity frame – lottery comprised of a low and a high-risk gamble, each with 0.5 probability – and a "strong" ambiguity frame – no probability information on lottery outcomes provided. Consistent with ME, SGBB2 find women to be more ambiguity averse in the investment (gain domain) frame; and the degree of aversion increased with the degree of ambiguity. SGBB2's findings for their insurance (loss domain) frame are mixed. Neither sex was significantly more averse to weak ambiguity, but men were significantly more averse to strong ambiguity.

GKS conducted a two-part study of risk preferences and how preferences are influenced by ambiguity, a subject's knowledge of financial markets, and the subject's level of overconfidence in financial decision-making. In the first part of their study, subjects (50 university students) are evaluated on their knowledge of financial markets, and their confidence

in their judgments.[7] The responses in this part of the experiment were used to generate measures of a subject's knowledge and overconfidence.

In the second part of the experiment, GKS elicit subjects' certainty equivalents for twelve lotteries. Four of the lotteries are based on the performance of mutual funds issued by a Swiss bank. Four additional lotteries are based on the performance of four simulated, virtual mutual funds. Times series from real mutual fund prices were used to create the virtual fund simulations. The final four lotteries, the pure risk cases, were standard lotteries with the probabilities know to both subjects and experimenters. For the 12 lotteries, subjects bet on whether or not the funds would post a daily market price increase of 0.5%.

GKS find no evidence of a sex difference in risk preferences in the absence of controls for competence, knowledge, and overconfidence. Controlling for these factors does, however, reveal signs of a sex difference. Women are shown to be significantly more risk-averse, with their risk aversion decreasing with competence, overconfidence, and knowledge: women's risk-aversion diminishes as their expertise increases. The interactions have just the opposite effect for men, with risk aversion increasing in expertise and confidence.

In EG2's Investment treatment, subjects (57 college students) face the same choices as the baseline Abstract Gamble treatment, but the decision is framed as investing in a share of stock of one of five different companies. The payoff value of the stock is stated to be determined by the company's performance. The possible payoff values (performance) of the shares are the same as the payoffs for the abstract gambles. In contrast to SGBB, EG do not find that sex differences disappear in the richer, investment-based decision making context. As in their abstract gamble experiments, EG's results indicate that men are significantly more risk prone than women ($t = 3.96$, p-value < 0.001). This result is confirmed in their regression analysis.[8]

PA consider risk attitude differences in two contexts: insurance and a currency trading market. In the insurance treatment, subjects (126 college students) make 12 separate insurance decisions.[9] They are given an initial endowment before each decision. Subjects are told that one

[7] Subjects answer twenty questions concerning financial markets, of which 15 were used to asses their knowledge. Subjects are also asked to state the probability that their answers are correct. The stated probabilities for each question were used to construct corresponding lotteries. Subjects then decided whether to bet that their answer was correct or to accept the corresponding lottery. The expected payoffs in both cases were the same.

[8] As in the abstract gamble treatments, men were predicted to be more risk prone than women by both women and men. The mean prediction by men and women for men was of 3.47 and for women it was 2.93; a significant difference ($t = 5.80$, p-value < 0.001).

[9] A subject's earnings were determined by his choice and the outcome for only one randomly chosen decision.

of three events will occur: no loss; lose half of the endowment (damage); lose all of the endowment (disaster). Subjects are given the opportunity to purchase one of five insurance options – no insurance, damage insurance, disaster insurance, both damage and disaster insurance, or to "pass" and permit the computer to select at random one of the other four options. Either the prices of the different insurance options, their endowment, or the level of risk differ across the 12 decisions.

In their currency market experiment, PA's subjects (101 college students) play a computer-based simulated trading game. There are four treatments with each treatment distinguished by the cost to enter the market. Given an initial endowment, subjects trade one currency for another in a risky market in order to make gains. Subjects can avoid the risk by exiting the market and holding their wealth. To reenter the market requires payment of an entry fee. In both experiments, PA find evidence of greater risk aversion on the part of their female subjects. In the insurance experiment, women more often purchase insurance and purchase more extensive insurance than men. These results are significant at the traditional levels. PA find that, in their currency market experiment, women are, on average, less in the market than men, also suggesting greater risk aversion. This finding is also significant at traditional levels.

Kruse and Thompson (2003) elicit values for 93 student subjects for risk mitigation using three different methods: one experiment and two surveys. In the experiment, subjects are given the opportunity to purchase a reduction in the probability of loss at various prices; their measure is the minimum accepted price. The higher this measure, the more risk averse are the subjects. While women are willing to pay more, the difference is not statistically significant. This pattern is repeated in the survey instruments.

Finally, LEC conduct an elaborate simulated stock market game to analyze investment decisions. An interesting difference between this study and the others cited is that subjects in this study can actually suffer out-of-pocket losses. Subjects (64 MBA students) are provided an initial endowment with which they can purchase shares in any, some or all, of 20 pure equity "firms". These securities are constructed by the experimenters to have particular properties. Firms differ in their mean (and standard deviation) return to equity (per trading period). The design of the experiment is such that the higher the risk chosen, the higher the expected return, reflecting properties of a real stock market. Subjects can avoid risk by lending their endowment at a risk-free interest rate of 2 percent; subjects may also borrow at this interest rate if they wish

to leverage their investments in risky assets. LEC find that the average wealth of men is significantly higher than that of women from the third trading period on, and the difference increases with each subsequent period.

LEC's study is able to consider separately two components of sex differences in risk attitudes: the percent of wealth held in riskless assets, and the variance of return on the stock portfolio. In all but one of the ten trading periods, women hold a higher percentage of their wealth in riskless assets; however, the difference never reaches a level of significance. Comparing the average "simple", average "Book to Market", and average "Book to End" variances of portfolios held, LEC find greater variance in men's portfolios in seven of ten, eight of ten, and nine of ten market periods, respectively. In only two of the market periods (for each measure of variance) were the differences significant. LEC also find no consistent pattern of greater efficiency of investment on the part of men relative to women.

The authors do, however, find that the combined effect of these three factors explains the differences in the cumulative wealth of men and women. They conclude that men tend to: 1) hold more of their wealth in risky assets; 2) hold risky stocks in their portfolio; 3) hold more stock; and 4) make more efficient investments. Though, there is no significant difference for each alone, the combined effect is highly significant.

Evidence From Field Studies

The evidence from both abstract gambling and contextual environment experiments of greater risk aversion by women is consistent with non-laboratory studies of behavioral differences between men and women. Johnson and Powell (1994) studied actual betting decisions on horse and dog races made at 50 betting offices throughout the United Kingdom over a one-week period. While they discovered no significant sex difference in decision quality (measured by the propensity to win), they did find that men were significantly more risk prone than women in their betting habits. Men: 1) made bigger bets on average; 2) made more and bigger higher-risk "win" bets, and fewer and smaller lower-risk "each-way" bets; 3) made more and bigger higher-risk "straight forecast" bets, and fewer and smaller lower-risk "reverse forecast" bets; and 4) made fewer and smaller "multiple bets".[10]

[10] Win bets only pay if the selection wins. An each-way bet pay if the selection finishes first, second, or third, and therefore, is a form of hedging. Straight forecast bets pay if the first and second place finishers were selected and

Bajtelsmit and VanDerhei (1997) [BV] provide further evidence consistent with the hypothesis of greater risk aversion by women. They studied the defined contribution pension allocation decisions of 20,000 management employees of a large U.S. employer. All employees were provided the same investment alternatives. They report that, relative to men, women held a significantly greater share of their account balances in relatively low-risk fixed income investments and a significantly smaller share in higher-risk employer stock. The same pattern of behavior held true for allocations of current contributions. BV find no sex difference in either holdings of, or current allocations to, diversified equities. The results must be applied cautiously as the authors had no information on marital status or other measures of household wealth and income.

Jianakoplos and Bernasek (1998) [JB], using data from the 1989 Survey of Consumer Finances, examined investment behavior of single men, single women, and married couples. As their dependent variable they employed the ratio of risky assets held to wealth. Controlling for factors such as age, education, children, and home ownership, JB find that single women are significantly more risk averse (i.e., hold a smaller percentage of their wealth in the form of risky assets) than single men.

Using data from the 1992 and 1995 Surveys of Consumer Finances, Sundén and Surette (1998) [SS] examine sex differences in the allocation of defined contribution plan assets. Investment choices were defined as: 1) invest mostly in stocks; 2) invest mostly in interest earning assets (bonds); or 3) investments split between stocks and bonds. Using a multinomial logit model, SS find that sex and marital status are significantly related to asset allocation. Married men and married women were less risk prone than their single counterparts (i.e., married men were less likely than single men to choose investment choice 1; and married women were less likely than single women to choose investment choice 3). Single women were less risk prone than single men (i.e. less likely to choose investment choice 1).[11]

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the exact order of finish was predicted. Reverse forecast bets pay if the first and second place finishers were selected, the order of finish need not be predicted. Multiple bets require combinations of bets on runners in different races. Payoffs may occur even if only one of the selected runners wins. Reverse forecast and multiple bets have elements of diversification to them, indicating less willingness to accept risk.

[11] Relative performance of male and female mutual fund managers is examined in Atkinson, et al. (2003). Their findings suggest that differences in male and female investment patterns may be due to differences in knowledge and wealth.

Discussion

The findings from field studies conclude that women are more risk averse than men. The findings of laboratory experiments are, however, somewhat less conclusive. While the preponderance of laboratory evidence is consistent with field evidence, there is enough counter-evidence to warrant caution. For example, both field and lab studies typically fail to control for knowledge, wealth, marital status and other demographic factors that might bias measures of male/female differences in risky choices.

Another difficulty with drawing conclusions from the existing experimental evidence is the lack of comparability across studies. Studies differ in the form the risk takes (i.e., the structure of the gamble), the potential payoffs, and the degree of risk as variance. Studies also differ in the nature of the decision that subjects are required to make. Elicitation methods and frames also differ in their transparency and in the cost of mistakes. In some experiments, subjects must state a value for a gamble; in others they must state a minimum selling or buying price, with or without an incentive compatible mechanism. In others subjects choose between certain amounts and gambles; and in still others, subjects choose between or among gambles. Sometimes gambles are ordered in a transparent way, from high to low probabilities, say; in others they are randomly ordered. One possibility, only just beginning to be investigated, is that subjects make "errors" in these tasks, and that there are systematic differences in the types of errors made in each that may be correlated with the gender of the decision makers. At any rate, each study is sufficiently unique as to make comparisons of results across studies problematic.

Another issue that has rarely been addressed in gamble-based laboratory experiments is the consistency of measures of risk aversion across tasks. Eckel, Grossman and Lutz (2002) present data that shows very low correlations across different valuation tasks for similar gambles. For example, in one task subjects must name a minimum selling price for a 10 percent chance of $10 using a BDM procedure. In another, the same subjects indicate a willingness to sell or not sell, at various prices, an "egg" that pays off $10 with probability .10. The correlation between these two measures is .04. This result is quite consistent with results published in the psychology journals beginning with Slovic (1964), and confirmed by many others since (see Weber, et al, 2002). While more research is clearly necessary, the findings thus far shed serious doubt on the existence of risk attitude as a measurable, stable personality trait, or as a domain-general property of a utility function in wealth or income.

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TABLE 1: Summary Table of Findings of Sex Differences in Risk Behavior

	Significantly More Risk Averse Sex*			
	Abstract Environment		Contextual Environment	
Experimental Studies	**Gain Domain**	**Loss Domain**	**Gain Domain**	**Loss Domain**
Brinig	**Female**	NA	NA	NA
Eckel and Grossman (2002b)	**Female**	NA	**Female**	NA
Harbaugh, Krause, Vesterlund	Neither	Neither	NA	NA
Gysler, Brown Kruse, Schubert	NA	NA	Neither	NA
Harrison, et al.	Neither	NA	NA	NA
Holt and Laury – Low Payoff	**Female**	NA	NA	NA
Holt and Laury – High Payoff	Neither	NA	NA	NA
Kruse and Thompson	NA	NA	NA	Neither
Levy, et al.	NA	NA	**Female**	NA
LSC, et al.	**Female**	**Female**	NA	NA
Moore and Eckel	Neither	**Male**	**Female**	**Neither**
Powell and Ansic	NA	NA	**Female**	**Female**
Schubert, et al.	**Female**	**Male**	Neither	Neither
Schubert, et al.2	NA	NA	Neither	Neither
Field Studies			**Gambling**	**Investment**
Jianakoplos and Bernasek			NA	**Female**
Johnson and Powell			**Female**	NA
Sundén and Surette			NA	**Female**

* - significant at the 10 percent level or higher.

TABLE 2: Summary Table of Findings of Sex Differences in Ambiguity Aversion

		Significantly More Ambiguity Averse Sex*			
		Abstract Environment		Contextual Environment	
Experimental Studies	**Ambiguity**	**Gain Domain**	**Loss Domain**	**Gain Domain**	**Loss Domain**
Moore and Eckel	**In Probability**	**Neither**	**Male**	**Female**	**Neither**
	In Payoff	**Neither**	**Male**	**Female**	**Neither**
	In Both	**Neither**	**Neither**	**Female**	**Male**
Schubert, et al.2	**Weak**	NA	NA	**Female**	**Neither**
	Strong	NA	NA	**Female**	**Male**

- significant at the 10 percent level or higher.