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Mars and Venus at Twilight: A Critical Investigation of Moralism, Age Effects, and Sex Differences

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Analysts have long sought to understand whether women and men have different ethical orientations. Some researchers have argued that women and men consistently make fundamentally different ethical judgments, especially of corruption; others have found no such disparities. This study considered whether an individual's age may also play a role in determining his or her moral judgment. A statistical investigation of interactive effects between gender and age in a nationally representative data set from Japan shows that this interaction functions better as a predictor of moralism than does education or gender alone. Older individuals of both sexes were found to have similar strict moral perceptions; as women and men age, their ethical judgments converge.

KEY WORDS: ethical judgment, age effects, moralism, Japan, political corruption

Women's orientation toward politics, especially political corruption and ethics, has been at the center of a long-running debate among political scientists, developmental psychologists, and feminist theorists. As women have entered the political arena as legislators and judges in increasingly large numbers, and as activists have seized on "gender gaps" in policy issues, voting patterns, and moral orientation, researchers have contested the idea that women and men view their own and others' actions with similar judgments. Gilligan pushed the argument to center stage when she claimed that women and men differed fundamentally on moral issues and simultaneously criticized Kohlberg's six-stage theory of moral reasoning development (Gilligan, 1977, 1982, 1988; Kohlberg, 1969, 1981; Kohlberg et al., 1976).

We seek to move beyond this debate by incorporating a new approach to the

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study of gender differences in ethical judgment: an interaction effect between age and gender. Reinvestigating a large-scale data set of Japanese citizens used in previous studies, we discover that women's and men's moral judgments converge as they age. That is, moral judgment of political ethics is not constant with gender, but rather depends on interaction with the age of the individual and his or her gender. That this finding comes from Japan is particularly noteworthy. Japan is one of the most gender-stratified societies in the developed world (Verba, Nie, & Kim, 1978). If gender differences in moral judgment disappear with age in Japan, the differences should be even smaller in other developed societies.

Theoretical Background

There is considerable disagreement among scholars as to whether ethical judgment differs between men and women, and if so, whether it is men or women who are more "ethical." This debate over the existence of gender differences in moral orientation has a long history. Gilligan, building on the work of Chodorow (1974, 1978), believed Kohlberg's theory was insensitive to the feminine orientation toward caring and responsibility (Gilligan, 1977, 1982, 1988). In essence, Gilligan argued that women engage in a care- and compassion-based reasoning system that contrasts sharply with the abstract justice reasoning used by most men. In her work, "Gilligan claims empirical support for the existence of a moral outlook or orientation distinct from one based on impartiality, impersonality, justice, formal rationality, and universal principle" (Blum, 1988, p. 472).

Like Gilligan, other theorists have posited the existence of essential differences in patterns of moral and ethical judgment between women and men. Seltzer, Newman, and Leighton (1997), in their wide-ranging study of women in politics, contended that women are more conservative than men in orientation and are more willing to sacrifice civil liberties to curtail sexual freedom. In studies conducted in Latin America (Jaquette, 1994) and Sierra Leone (Kpundeh, 1995), researchers found that women were consistently less tolerant of corruption than were men. One article argued that female judges more consistently enforce the death penalty than their male counterparts (Toobin, 2000). Other theorists have argued that women at least *project* an image of honesty, integrity, and "moral superiority" (Abzug, 1984; Huddy & Terkildsen, 1993; Skocpol, 1992). As Greeno and Maccoby (1987) argued, "It is clear that women have a greater reputation for altruism and empathy than do men" (p. 313). In Japan as well, female legislators promote an image of cleanness and moral integrity, in contrast to their male colleagues (Iwao, 1993; Johnson, 1992).

Some analyses have supported Gilligan's argument that women are less tolerant than men toward immoral behavior, but others have disagreed. For example, in his investigation of attitudes toward corruption in small towns, Gardiner (1970) argued that a quantitative investigation of tolerance of gambling turned on their head "traditional assumptions that women are more moralistic than men" (p. 51).

His survey-based study found that 20% more women than men tolerated gambling in their community.

In a more fundamental challenge to arguments about gender-based differences in ethical judgment, some observers have claimed that there are no statistically significant differences of any kind. Using a survey-based approach with a small sample ($N = 40$), Krebs, Vermulen, Lenton, and Carpendale (1994) concluded that there are no significant gender differences in moral orientation. They also used their results to contest Gilligan's claim that Kohlberg's test was biased against women. Schlozman, Burns, Verba, and Donahue (1995) sought to test whether women "speak in a different voice" in the sphere of citizen participation through the rewards they seek and their political concerns. They concluded that women and men participate in similar types of activism, such as contacting local politicians or engaging in informal community activity, regardless of gender. Walker (1984) conducted a meta-analysis of more than 100 previous studies of ethical judgment and concluded that "the overall pattern is one of nonsignificant sex differences in moral reasoning" (p. 677). Suurmond (1992) attempted to "fill in the empirical lacuna and . . . elaborate Gilligan's theory about differences in moral reasoning between women and men" through an analysis of 20 texts on immigration and refugee issues (p. 103). She argued that her findings could be seen partly as an affirmation of Gilligan's ideas, but that the theory required broadening and further specification.

In addition to disputes over the influence of gender on political attitudes, some recent studies in political psychology have suggested that age may also play an important role. Using a series of mass surveys, Inglehart (1981, 1988) argued that older citizens are substantially more "materialist" than their younger counterparts. He implied that younger, more "postmaterialist" citizens may be more concerned about issues of transparency and morality. More recently, Putnam (2000) argued that younger citizens are significantly more individualistic than their elders, thereby making younger cohorts much less likely than older ones to participate in organized civic activities. In the context of morality, this may mean that younger cohorts, who are less engaged in politics, may be more tolerant of corrupt activities. Or it may mean that younger people are less engaged precisely because they are more moralistic and seek to avoid becoming involved in corrupt activities, which they view as ubiquitous within society. The question of how gender effects interact with generational or cohort effects, then, presents a particularly important agenda for researchers.

Several recent studies have stressed the importance of age vis-à-vis gender and ethical judgment. Hayes, McAllister, and Studlar (2000) claimed that "[generational] value change and the feminist movement represent two major shifts in mass political orientations and behavior in the late twentieth century" (p. 425). Wark and Krebs (1996) hinted at this interaction when they argued, "A more interactional model of moral judgment than the models of L. Kohlberg and C. Gilligan is recommended" (p. 220). Pharr (1998) alluded to this effect when she

argued that the essential differences in ethical judgment fall between older and younger women. Lyons (1988) explicitly argued that her "findings suggest the possibility of an interaction between the rights and response orientations for women" of different ages (p. 39).

In response to the issues raised by previous studies, we conducted a rigorous investigation of the effect of interaction between gender and age on ethical judgment of political corruption, using a large data set of Japanese citizens. By using a data set already mined by other investigators, we are attempting to carry out what Kuhn (1962), quoting Herbert Butterfield (*The Origins of Modern Science, 1300–1800*, 1949), called "picking up the other end of the stick"—a process that involves "handling the same bundle of data as before, but placing them in a new system of relations with one another by giving them a different framework." The convergence that we find between men's and women's judgments as they age is construed here as a life cycle effect rather than a generational effect. We argue that women and men gain similar experience and knowledge as they grow older and thus come to view situations similarly (Beutel & Marini, 1995; Pharr, 1998). Further, we argue that this interaction effect between age and judgment is not restricted to men and women in Japan, but can be seen in other advanced democracies (Cohn, 1991; Muhlberger, 2000).

Overview of the Survey and the Four Ethics Scenarios

The 1996 Japanese Elections and Democracy Study (JEDS 1996) survey was conducted in October 1996 by Chuo Chosa Sha (Central Research Services Inc.) at locations throughout Japan via a three-stage stratified sampling method and produced a valid *N* of 1,535 individuals (out of 2,100 surveyed, with a response rate of 69.1%). The questionnaires were administered in person, with four additional questions mailed to the participants after the Lower House election of October 1996.

Our main interest in this data set is in the section that deals with four "ethics scenarios." In the ethics scenarios section, JEDS 1996 presented four circumstances to the respondents, asking them to judge the conduct of officials or politicians involved in the scenario on a four-category scale from "not at all problematic" to "problematic." Analysts studying moral judgment regularly provide informants with scenarios and hypothetical dilemmas on which to pass judgment in order to obtain a "window" into their ethical decision-making processes (Speicher, 1994, p. 626). In some cases the responses are open-ended discussions; in others, as in JEDS, the answers are arrayed on an ordinal scale (Gilligan, 1977, 1982, 1988; Kohlberg, 1969, 1981; Kohlberg et al., 1976; Krebs, Vermulen, Lenton, & Carpendale, 1994).

These four scenarios were designed to provide insights into citizen judgment of public officials' conduct in common but fuzzy situations. The first scenario, Funeral Gift (also called vote buying), describes a politician who attends the funeral of a respected constituent and leaves a gift of $500 for the family as a

sign of respect. No specific request for votes or other favors is made to the recipient of the gift. In Japan, it is common that politicians distribute gifts to their constituents at events such as funerals and weddings (Sekora, 1999). Some studies have posited that Japanese politicians visit more than 20 funerals a month on average. However, because such gift-giving may impose considerable psychological pressure on the recipient to conduct favors for the politician in the future, the line between gift-giving and bribing is vague.

The second scenario, Revolving Door, depicts a government bureaucrat being offered a job within the industry with which he has worked over his professional career. The practice is known in Japanese as *amakudari* (literally "descent from heaven") or in French as *pantouflage* (Putnam, 1976, p. 111). Although numerous studies have shown that the upper ranks of managers at semi-public corporations in Japan are filled with ex-bureaucrats (see, e.g., *Sorifu*, 2000, pp. 315–336), bureaucrats are officially banned from taking jobs in related private sectors for 2 years after retirement. Nonetheless, many bureaucrats are hired by the private sector after the mandatory 2-year "cooling-off" period (Johnson, 1982), and the practice still presents opportunities for abuse. The prospect of working for the industry may lead bureaucrats to be less stringent in introducing and enforcing regulatory procedures than they otherwise might be.

In the third scenario, Golf Clubs, a businessman returning from a trip to Britain brings a set of expensive golf clubs to a politician in his district. The politician receives and accepts this gift without any overt promises for future behavior. The fourth scenario, Stock Deal, involves a businessman offering a politician a lower than market value price on a stock before that stock is made available to the public. The politician, desperate for campaign funds, accepts the offer.

Each of these practices (retiring to a corporate roost, accepting gifts from constituents, etc.) is rooted in what some have described as the everyday practices of Japanese politicians. However, these practices have come under considerable attack in recent years. Some have argued that media coverage of corruption has been among the strongest factors in creating an alienated and politically unattached populace (Pharr, 2000). In none of these cases is there any *explicit* agreement to exchange favors, but there is nonetheless substantial room for abuse; indeed, in many instances, the practices have been abused, leading to well-publicized media scandals. A "moralistic" individual—defined in our study as an individual less tolerant of corrupt behavior and willing to condemn political activities that take place in such common gray areas—should be expected to view all of these scenarios as problematic. Consequently, a less moralistic individual should view these practices as acceptable.

Replication of Pharr's (1998) Results

Pharr (1998) used overall "gender gap" percentages generated by these same four scenarios to argue that men and women are moralists in different scenarios. That is, more women than men found the Funeral Gift and Golf Clubs scenarios

problematic, whereas fewer women than men found the Stock Deal and Revolving Door scenarios unethical. For older Japanese respondents, the gender differences in responses to the four scenarios are much smaller than the gap for younger Japanese. Pharr argued that older women are the "moralists" among the women, as, for example, "*older women were stricter in their judgments than younger women with striking consistency*" (Pharr, 1998, p. 231; emphasis in original). Using the same four questions, Pharr then calculated the estimated percentage of positive responses (i.e., people reporting that the scenario was morally problematic) to the four scenarios on the basis of gender, holding education and age constant. Pharr used a logit regression to calculate these probabilities for women and men, where the dependent variable was whether respondents found the scenario to be problematic or nonproblematic, and the independent variables were age, gender, and education level.

As the first step in investigating whether women and men differ significantly in ethical judgment, we sought to replicate Pharr's analysis through cross-tabulation. The results are displayed in Table 1 and Figure 1, which show the differences between male and female respondents in judging the scenarios to be unethical. In Table 1, respondents are categorized as "younger" (aged 25 to 34) or "older" (aged 35 to 59), and also as having had "less education" (less than 2 years of college) or "more education" (2 years or more).

The estimated probabilities reported in Figure 1 were calculated using the logit estimation while holding age and education constant at their mean values,

Table 1. "Ethics Gender Gap" in Four Scenarios

	Gender gap				
	Overall (%)	Among younger, less educated people (%)	Among older, less educated people (%)	Among younger, more educated people (%)	Among older, more educated people (%)
Stock Deal	**–6.10**	**–24.21**	**–2.63**	**–18.08**	**–0.69**
% Women	79.84	65.15	82.75	71.11	84.09
p value	.02	.003	.42	.04	.90
Revolving Door	**–9.44**	**–16.84**	**–9.56**	**–8.17**	**–5.40**
% Women	57.75	39.68	60.58	43.18	67.01
p value	.004	.08	.03	.46	.43
Golf Clubs	**0.24**	**–17.39**	**2.10**	**–12.17**	**8.34**
% Women	36.65	14.52	44.26	11.36	38.46
p value	.94	.03	.64	.15	.25
Funeral Gift	**3.84**	**–12.5**	**–7.76**	**10.45**	**–2.70**
% Women	44.68	21.54	53.04	26.67	41.49
p value	.25	.14	.08	.26	.72

Source: Respondents (ages 25–59) from the 1996 JEDS survey. The figures reported are the result of cross-tabulation and χ^2 significance tests. The "gender gap" (the percentage in boldface) was calculated by subtracting the percentage of men who found the scenario unethical from the percentage of women who found the scenario unethical. Younger = ages 25 to 34, older = ages 35 to 59; less education = completed less than 2 years of college, more education = completed 2 or more years of college.

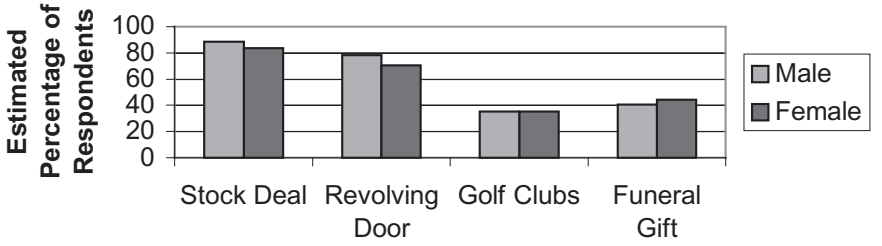

Figure 1. Gender differences in judging four ethics scenarios as "unethical." Respondents (ages 25–59) in the 1996 JEDS 1996 survey ($N = 917$) were presented with a list of five possible responses to the scenarios, ranging from "not problematic" to "problematic." These were recoded into a dichotomous variable.

with age at its mean of 49.26 years and education level at 1.25 (where "1" represents less than 2 years of college and "2" represents 2 years or more). The estimated parameters were generated by maximum likelihood logit estimation with a binary dependent variable; the binary variable encodes for problematic or nonproblematic. The independent variables were gender, age, and education. These coding and word choices for both Table 1 and Figure 1 follow those of Pharr (1998). Additionally, we use the phrase "gender gap" as it is used in Pharr (1998)—the difference between male and female respondents' answers. Overall, we produced very similar results, with some minor differences due to rounding.

Pushing Forward: Rethinking the Ethics Scenarios

Pharr's results seem to illuminate a gap in moral judgment between men and women, as indicated by the difference in the predicted number of respondents judging the scenarios to be problematic. Her paper also contains an interesting observation: Across all questions, older women seem more strict than younger women. However, Pharr's paper did not use an interaction term between gender, age, and ethical judgment in its multivariate analysis, nor did it attempt to produce confidence intervals around results. Having reproduced Pharr's results using standard data analysis techniques, we further tested the relationship among age, gender, and morality with the use of simulation techniques and confidence intervals to extract information and estimate the degree of uncertainty in these initial findings. Additionally, we used an interaction variable to allow for differences in the effect of age, depending on gender.

Simulation and Confidence Intervals

Confidence intervals allow investigators to "express the appropriate degree of certainty around . . . quantities," whereas simulation techniques allow us to

"extract the currently overlooked information" and "interpret and present it in a reader friendly manner" (King, Tomz, & Wittenberg, 2000, p. 341). In simulation, we "learn about a distribution by taking random draws from it" (Ibid, p. 349). Once we have taken the random draws, we can use them to approximate a feature of the distribution (Tomz & Wittenberg, 1999, p. 11). Here, our quantity of interest is the difference between men's and women's probabilities of judging the scenario to be unethical, and we use simulations of this value to demonstrate both sampling error and fundamental uncertainty about our predictions.

We use the same variables that Pharr (1998) used: age, which has been truncated between 25 and 59 as in her paper (A_i); gender (G_i); and education level, measured as a dichotomous variable, with individuals having either 2 years of college or less than 2 years (E_i). We recognize that Pharr restricted the data used in her logistic regressions to the range between 25 and 59 for reasons of comparability with the qualitative component of her research: focus groups. Education level was held constant at its mean of 1.26 (where "1" represents less than 2 years of college and "2" represents 2 or more years of college); age was allowed to vary. These coding and word choices follow those of Pharr (1998). Our entire set of explanatory variables at this point is $X_i = \{1, A_i, G_i, E_i\}$, where 1 is a constant.

In our logit model, the probability of judging a scenario to be unethical is $E(Y_i) = \pi_i$, an intuitive quantity of interest. We estimated this probability, and the uncertainty surrounding it, for men and women across the truncated age range while holding other variables at their means. Then we performed a first difference, in essence subtracting the men's from the women's responses. Our N was 899, and we repeated the expected value algorithm $M = 1{,}000$ times to approximate a 95% confidence interval around the first difference of the probability of judging each scenario to be unethical. The results appear in Figure 2.

In a situation where women and men had quite similar judgments and little variation in their responses, we would see confidence intervals centered around the horizontal line at zero. When the 95% confidence intervals, indicated by the vertical lines, intersect with zero, we cannot reject the hypothesis that the actual "gap" between women and men is zero. In the Funeral Gift and Golf Clubs scenarios, we see confidence intervals crossing the horizontal line at zero, indicating that there may be no statistically significant gender differences in ethical judgment. Similarly, in the Stock Deal scenario, the confidence intervals extend from zero; any gender differences seem to be negligible.

Confidence intervals provide a visual representation of the possible values of our quantity of interest. The shape of these confidence intervals reveals information about the variation in the first differences. The width of the spread indicates the region in which the likely actual value lies. The longer the vertical lines of the confidence intervals, the greater our uncertainty about the predictions. Conversely, the shorter the vertical lines, the smaller the possible range for the actual value. The confidence interval in the Golf Clubs scenario, for example, spreads evenly around the horizontal line at zero up to approximately .09 and down to

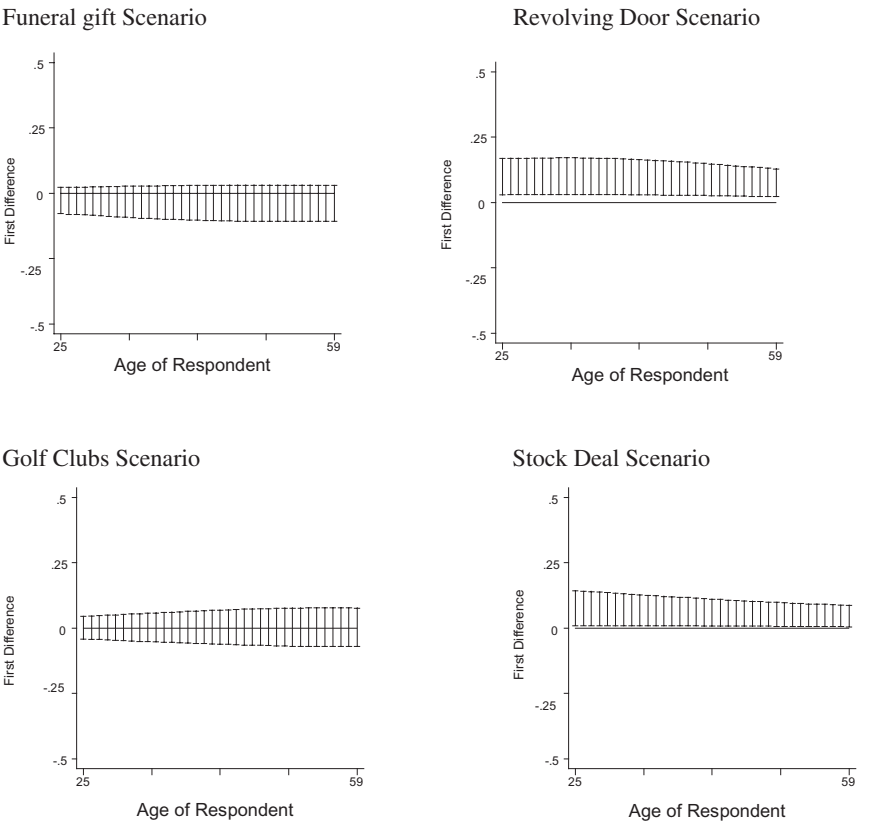

Figure 2. Differences in the Probabilities of Judging A Scenario "Strictly," by Gender, Using Truncated Data with no Interaction Term. The vertically-shaded space represents the 95-percent confidence interval for the first difference between women and men. The age values were truncated between 25 and 59, and no interaction term between gender and age was employed. N = 899, simulations = 1000. Education level was held constant at its mean of 1.26 with 1 as the equivalent of 2 or fewer years of college and 2 as more than two; age varied. These coding and word choices follow those of the original paper.

−.09. On the basis of our simulation techniques, we are confident that if we were to repeat the survey over and over again, the actual value of the difference between women's and men's judgments would fall within these bounds 95% of the time. It would be unlikely, for example, to see a difference in responses as large as .15 or −.15. As a side note, these graphs lack the "pig in a python" shape present in normal distributions because levels of difference (i.e., homoskedasticity) are relatively constant when we use the current set of explanatory variables.

Thus, we see that the differences between men and women in their ethical judgments essentially disappear in the Funeral Gift and Golf Clubs scenarios. It

seems that for the Revolving Door situation, men may constitute the moralists, because women are less likely than men to judge the scenario as unethical. The Stock Deal scenario reveals that judgments between women and men seem somewhat constant, but the shape of the confidence intervals and the curve of the vertical lines supports our expectation. As women and men age, their responses to the scenario become more similar, and thus the confidence intervals shrink and move closer to the horizontal line anchored at zero. Even for this scenario, it would be difficult to point to a clear and unambiguous gender difference. Women and men seem to have very similar responses across the four scenarios.

We are wary about drawing conclusions based on our data analysis at this point, because we have not allowed for a possible interaction between the respondent's gender and age. In the next section, we put our expectations to the test by using a larger data set and an interaction term between gender and age.

Testing the Argument on an Expanded Data Set

We now go two more steps beyond Pharr (1998). Our new set of variables is as follows: age, which has been extended between 18 and 90 (A_i); gender (G_i); and education level, measured as a dichotomous variable, with individuals having either 2 years of college or less (E_i). We also include an interaction term (I_i) between age and gender to test the hypothesis that ethical judgment is not constant with gender, but instead depends on the age of the respondent. Thus, our entire set of explanatory variables is $X_i = \{1, A_i, G_i, E_i, I_i\}$, where 1 is a constant.

In our logit model, the probability of judging a scenario to be unethical is $E(Y_i) = \pi_i$, an intuitive quantity of interest. As before, we used simulation techniques to estimate the first differences between women's and men's responses and used confidence intervals to indicate uncertainty around those predictions. Our N was 1,366, and we carried out 1,000 simulations. Education level and the interaction term were held constant at their means (1.42 and 23.53, respectively); age was allowed to vary. The results appear in Figure 3.

Because of the intersection of the confidence intervals with zero in the Funeral Gift, Golf Clubs, and Revolving Door scenarios, differences in ethical judgment based on gender become indistinguishable from zero. Only in the Stock Deal scenario do we see the possible presence of gender differences; however, as men and women age, their judgments within and across groups converge. We draw this inference because the mean confidence intervals approach zero as age increases in the Stock Deal scenario. Our certainty about the lack of a difference between women's and men's judgments in these scenarios is strengthened because of decreasing variation in their answers, which causes the confidence intervals to narrow as the respondents age. Note that the widths of the confidence intervals become shorter for respondents over the age of 55. Other things being equal, men and women are equally likely to find three of the ethics scenarios to be problematic, with older individuals being the most likely to have similar responses. Not

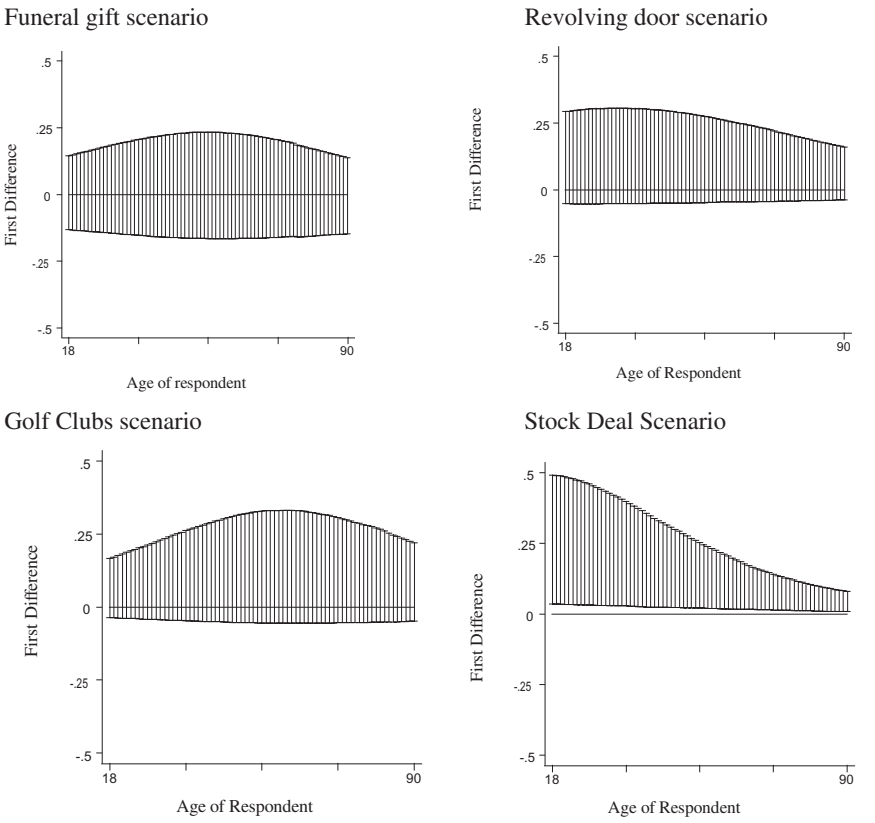

Figure 3. Differences in Probabilities of Judging A Scenario "Strictly," by Gender, Using Untruncated Data and an Interaction Term. The vertically-shaded space represents the 95-percent confidence interval for the first difference between women and men. The age values were expanded to run between 18 and 90, and an interaction term between gender and age was employed. N = 1366, simulations = 1000. Education level and the interaction term were held constant at their means (1.42 and 23.53 respectively) while age varied.

only women but also men become more "moral" as they grow older. For middle-aged and older citizens, we are confident that their responses are the same, regardless of gender.

The confidence intervals increased in width from their previous size because the interaction term evidently has weak effects on the dependent variable and thus functions as another linear term, creating additional collinearity between the variables. Overall, then, the confidence intervals have lengthened. However, by including the additional 500 data observations we gained by expanding the data set, we have narrowed the uncertainty around our variables of interest. The shape of the confidence intervals in the Funeral Gift and Golf Clubs scenarios, similar

to a "pig in a python," indicate that we have greater uncertainty about our predictions for middle-aged individuals. For the Stock Deal and Revolving Door scenarios, we become more certain about our predictions as individuals age. Using this model with an interaction term and an untruncated data set, we see more evidence for an "age gap" than for a "gender gap."

Discussion

Our findings suggest that Pharr's (1998) argument may need to be modified: According to the confidence intervals we calculated, the gender differences in the four ethics scenarios have narrowed to the point of disappearing. As indicated by these four ethics scenarios and our statistical techniques, women and men have approximately the same levels of moral judgment, demonstrated by the intersection of the confidence intervals with the horizontal line at zero.

Pharr's paper emphasized the framing process that women experience as they age, gaining understanding and education that lead them to make stricter moral judgments. Through an examination of the full data set and interaction terms, we have uncovered a connection between gender and age that was not visible using the original data analysis techniques. As can be seen in Figure 3, men *also* change their probability of judging scenarios as unethical as they age. As women and men age, their judgments on political phenomena converge until they are not differentiable statistically from zero. Our analysis suggests that future research should focus on a less "women-centric" approach: Instead of finding strong evidence of a gender difference in the ethics scenarios, we found strong evidence for an *age difference*. Indeed, this point is consistent with findings from Pharr's more recent work (Pharr, 2000).

Some observers might be concerned about both the accuracy and applicability of our results, because we have used Japanese survey research data but set it against theories and empirical findings based on respondents from Western cultures. Since Almond and Verba's (1963) foray into cross-national survey research, many researchers have tested or applied notionally "universal" theories through comparative research. These analysts have often used data from abroad to confirm theoretical speculations based on North American experiences. Recently, for example, theorists have looked toward the Netherlands and Spain (Klandermans, Sabucedo, Rodriguez, & de Weerd, 2002), Argentina (Thalhammer, 2001), Israel (Bar-Tal, 2001), and a collection of advanced democracies and sovereign states (Steinberg, 2001) to investigate theories of collective identity, political activism, fear and optimism, and birth order, respectively. None of these theories are indigenous to the country under study; rather, theorists have shown the often cross-national applicability of their hypotheses. More relevant to our paper, political theorists and analysts regularly use Japanese data and experiments to test theories created in a Western context. Watts and Feldman (2001) used survey data from Japan to generalize about processes of orientation toward individuals from

foreign countries in "developing democracies as well as in advanced democracies that feel threatened" (p. 639). Tsunoda (2002) drew on surveys of Japanese respondents to analyze attitudes toward nuclear power plant siting in Japan and other advanced democracies. Hirano (2001) leveraged national-level surveys in Japanese to test theories of social capital formation through membership associations. Pharr (1998) used national-level survey data from Japan to study the role gender plays in the formation of political judgment.

Beyond the appropriateness of testing Western theories on Japanese data, we believe that using Japan as a test case for theories of interaction among age, gender, and moralism provides insights into other advanced democracies as well. In Japan, the lives of women and men are far more differentiated by political, cultural, and industrial convention than in other advanced democracies. Women in Japan, relative to men, are underrepresented in political and business circles, undereducated, and underemployed. Japan has the second largest wage gap between women and men among member nations of the Organization for Economic Co-operation and Development (OECD), following only South Korea (OECD, 1999, p. 83). Although it has become common for industrialized countries to have several women within the cabinet, there was not a single female cabinet member in Japan in 1998 (World Bank, 2001). Only 7.3% of all members of the national Diet are women, compared to 42.7% in the Swedish parliament, 31.7% in Germany, 20.6% in Canada, and 14% in the U.S. House of Representatives (*Naikakufu*, 2002). In 1997, only 9.3% of all individuals holding managerial positions were women, compared to 44.3% in the United States, 30.6% in Norway, and 26.6% in Germany (*Naikakufu*, 1999). If our study has discovered that the processes of aging and socialization can erase years of institutionalized differences between the sexes in Japan, we are confident that such a mechanism will be present in other nations with less pronounced sex differentiation.

Life Cycle Effects

We believe that the age difference or "age gap" we found is not due to *generational* effects but rather to *life cycle* effects. Our argument is consistent with the recent findings of Hirano's (2001) study of political participation and social capital in Japan. Hirano found a strong effect of age on the likelihood of joining civic associations. Using the JEDS 2000 data with a valid *N* of 1,681, Hirano discovered that the age of an individual, more than his or her level of general trust or sense of political efficacy, strongly influenced the number of political groups he or she would join.

Similar evidence of decreasing gender differences in judgment as people age has been found in voting behavior among citizens in America. For example, in their investigation of patterns of Democratic voting among women and men during the 1992 presidential election, Seltzer et al. (1997) found an overall "Democratic gender gap" of 4.4%. That is, among women and men, on average

4.4% more women than men voted for the Democratic presidential candidate. However, when these researchers broke the presidential voting data into gender and cohort groups, an interesting finding emerged: As women and men age, their voting patterns converge. Moving from the highest difference of 9.7% among 18- to 29-year-olds, the difference decreases to 4.6% among 30- to 39-year-olds, then to 1.8% among 50- to 59-year-olds. The gap between the sexes finally hovers at 1.0% among women and men in the 60+ cohort (Seltzer et al., 1997, p. 53). They found this pattern among congressional elections as well; for example, during the 1992 congressional elections, the largest gap between women and men was among the 18- to 29-year-old cohort (5.9%), a figure that shrank rapidly to 0.5% as voters approached age 60. These researchers emphasized that the effect is an age effect, not a generational one (Seltzer et al., 1997, p. 68).

In another study of ethical judgment among American adolescents, researchers argued that the age of a respondent, rather than the generation into which he or she was born, created gender-based differences in moral judgment. Beutel and Marini (1995, p. 446) studied groups of younger women and men during a three-decade period and discovered that differences in ethical orientation were most likely created by socialization effects, not by generation effects. In Muhlberger's (2000) study of moral reasoning effects on political participation, he argued that "with age and experience in moral reasoning, people increasingly construe morality as constituted by impersonal and generalizable rules" (p. 667). Pharr (1998) adopted this approach in her study of Japanese respondents, emphasizing the role that age and socialization processes play in an individual's framing of ethical dilemmas. Specifically, as older individuals gain knowledge and experience—through work, involvement in the community, or interaction with community members—they "may overcome their information deficit and be better prepared to judge public officials' conduct within a relation-based frame" (Pharr, 1998, p. 232).

Issues for Further Research

This study raises several issues for further research. The first concerns the question of measurement. The survey questions that we used to measure ethical judgments drew heavily on actual political phenomena that have been heavily debated within the public arena in recent years. Scandals have drawn much media coverage in Japan, from the earlier Lockheed, Recruit-Cosmos, and Sagawa Kyubin scandals to the recent scandals at the Ministry of Foreign Affairs. It is possible, then, that the responses to the surveys may measure not only ethical judgment but perhaps also the degree of political knowledge or political engagement of respondents. This may be particularly true for the Stock Deal scenario. This scenario was essentially the same as the heavily publicized Recruit-Cosmos scandal, which may explain why responses to this scenario differed from responses to the other three scenarios. More sophisticated indicators that measure

ethical judgment in a less ambiguous manner may be necessary to confirm our findings.

The second issue concerns how these variations (or lack thereof) in ethical judgment actually affect political processes. Are citizens more or less likely to vote if they are more ethical in their judgments? Are the more ethical citizens more likely to be turned off entirely from politics as corruption scandals emerge, or are they likely to voice their anger by voting in larger numbers? What does the convergence of ethical judgments have to do, if anything, with (a) levels of trust in government, or (b) higher voter turnout, as well as political engagement more broadly, among older citizens than among their younger counterparts (Verba et al., 1978)?

Third, further research is necessary on the mechanisms through which age leads to a convergence in values. We agree with Pharr (1998) that learning processes that take place throughout the life cycle explain this effect, but more direct measures of political learning are needed to buttress this argument. Do women and men acquire similar levels of political knowledge as they age? If women and men converge in ethical judgment, do they converge in other aspects of public opinion as well? We believe future research should examine these issues.

Despite these remaining questions, our data support the argument that socialization processes affecting people as they age create similar ethical judgments among women and men. Women may be from Venus and men from Mars (Grey, 1992), but as they move through the life cycle, their moral judgments of ethical corruption become quite similar. We argue against previous studies that made blanket statements about the existence of clear and unambiguous gender differences in ethical and moral judgments. Rather, we believe that over time, women and men become equally moral in their judgments of political corruption.

Political analysts should seriously consider the implications of this study, for several reasons. The most obvious implication is the importance of testing for interaction among age, gender, and ethical judgment. Since the initial debate involving Gilligan and Kohlberg, many scholars have investigated gender-based differences in moral judgment. These researchers, as we have shown, have rarely investigated the possibility of an interaction effect with age. It may be true that at certain life stages, such as late adolescence and early adulthood, women and men have quite different views of corruption and other political phenomena. If true, these differences would be revealed in studies of judgment content and orientation in populations in the youngest age cohort (18 to 30 years). However, as we have argued, over time those differences seem to ebb as socialization, learning, and relational framing take place.

Another implication of this finding is that political scandals are most likely to offend the sensibilities of those who are also most likely to vote. Older cohorts are not only more strict in ethical judgment than their younger counterparts, but also more likely to turn up on election day. The turnout of female voters varies substantially across countries, but as with men, it is consistently lower among

younger cohorts than among older ones. This means that the impact of scandals on voters may be significantly larger than was expected on the basis of existing studies.

Finally, we have shown that researchers should use caution when drawing conclusions based on data analyses conducted without measures of uncertainty. What might appear to be unambiguous in standard tabulation or logit-predicted values can disappear when subjected to simulation techniques. Analysts should take seriously the challenge of using confidence intervals when reporting their results to ensure more accurate inferences.

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REFERENCES

Abzug, B. (1984). *Gender gap: Bella Abzug's guide to political power for American women*. Boston: Houghton Mifflin.

Almond, G. A., & Verba, S. (1963). *Civic culture: Political attitudes and democracy in five nations.* Princeton, NJ: Princeton University Press.

Bar-Tal, D. (2001). Why does fear override hope in societies engulfed by intractable conflict, as it does in the Israeli society? *Political Psychology, 22*, 601–627.

Beutel, A., & Marini, M. (1995). Gender and values. *American Sociological Review, 60*, 436–448.

Blum, L. (1988). Gilligan and Kohlberg: Implications for moral theory. *Ethics, 98*, 472–491. [Reprinted in M. Larrabee (Ed.) (1993), *An ethic of care: Feminist and interdisciplinary perspectives*. New York: Routledge.]

Chodorow, N. (1974). Family structure and feminine personality. In M. Z. Rosaldo & L. Lamphere (Eds.), *Women, culture, and society* (pp. 43–66). Stanford, CA: Stanford University Press.

Chodorow, N. (1978). *The reproduction of mothering*. Berkeley, CA: University of California Press.

Cohn, L. (1991). Sex differences in the course of personality development: A meta-analysis. *Psychological Bulletin, 109*, 252–266.

Gardiner, J. (1970). *The politics of corruption: Organized crime in an American city*. New York: Russell Sage Foundation.

Gilligan, C. (1977). Concepts of the self and of morality. *Harvard Education Review, 47*, 481–519.

Gilligan, C. (1982). *In a different voice: Psychological theory and women's development.* Cambridge, MA: Harvard University Press.

Gilligan, C. (1988). Adolescent development reconsidered. In C. Gilligan, J. Ward, & J. Taylor (Eds.), *Mapping the moral domain: A contribution of women's thinking to psychological theory and education* (pp. vii-xxxiv). Cambridge, MA: Harvard University Press.

Greeno, C., & Maccoby, E. (1987). How different is the "different voice"? *Signs: Journal of Women in Culture, 11*, 310–316. [Reprinted in M. Larrabee (Ed.) (1993), *An ethic of care: Feminist and interdisciplinary perspectives*. New York: Routledge.]

Grey, J. (1992). *Men are from Mars, women are from Venus.* New York: HarperCollins.

Hayes, B. C., McAllister, I., & Studlar, D. T. (2000). Gender, postmaterialism, and feminism in comparative perspective. *International Political Science Review, 21*, 425–439.

Hirano, H. (2001, August). *Political participation and forms of social capital.* Paper presented at the annual meeting of the American Political Science Association, San Francisco.

Huddy, L., & Terkildsen, N. (1993). Gender stereotypes and the perception of male and female candidates. *American Journal of Political Science, 37*, 119–147.

Inglehart, R. (1981). Post-materialism in an environment of insecurity. *American Political Science Review, 75*, 880–900.

Inglehart, R. (1988). The renaissance of political culture. *American Political Science Review, 82*, 1203–1230.

Iwao, S. (1993). *The Japanese woman: Traditional image and changing reality*. New York: Free Press.

Jaquette, J. (1994). Conclusion: Women's political participation and the prospects for democracy. In J. Jaquette (Ed.), *The women's movement in Latin America: Participation and democracy* (pp. 223–238). Boulder, CO: Westview.

Johnson, C. (1982). *MITI and the economic miracle: The growth of industrial policy, 1925–1975.* Stanford, CA: Stanford University Press.

Johnson, L. (1992). The feminist politics of Takako Doi and the Social Democratic Party of Japan. *Women's Studies International Forum, 14*, 385–395.

King, G., Tomz, M., & Wittenberg, J. (2000). Making the most of statistical analyses: Improving interpretation and presentation. *American Journal of Political Science, 44*, 341–355.

Klandermans, B., Sabucedo, J. M., Rodriguez, M., & de Weerd, M. (2002). Identity processes in collective action participation: Farmers' identity and farmers' protest in the Netherlands and Spain. *Political Psychology, 23*, 235–251.

Kohlberg, L. (1969). Stage and sequence: The cognitive-developmental approach to socialization. In D. Goslin (Ed.), *The handbook of socialization theory and research* (pp. 347–480). Chicago: Rand McNally.

Kohlberg, L. (1981). *The philosophy of moral development: Essays on moral development, 2*. San Francisco: Harper and Row.

Kohlberg, L., et al. (1976). *Moral stage scoring manual*. Cambridge, MA: Center for Moral Education, Harvard Graduate School of Education.

Kpundeh, S. (1995). *Politics and corruption in Africa: A case study of Sierra Leone*. Lanham, MD: University Press of America.

Krebs, D. L., Vermulen, S. C., Lenton, K. L., & Carpendale, J. I. (1994). Gender and perspective differences in moral judgment and moral orientation. *Journal of Moral Education, 23*, 17–26.

Kuhn, T. S. (1962). *The structure of scientific revolutions*. Chicago: University of Chicago Press.

LeBlanc, R. (1999). *Bicycle citizens: The political world of the Japanese housewife*. Berkeley, CA: University of California Press.

Lyons, N. (1988). Two perspectives: On self, relationships, and morality. In C. Gilligan, J. Ward, & J. Taylor (Eds.), *Mapping the moral domain: A contribution of women's thinking to psychological theory and education* (pp. 21–48). Cambridge, MA: Harvard University Press.

Muhlberger, P. (2000). Moral reasoning effects on political participation. *Political Psychology, 21*, 667–695.

Naikakufu (Japanese Cabinet Office) (1999). *Danjo Kyodo Sankaku no Genjo to Shisaku* (FY 1999 Annual Report on the State of the Formation of a Gender Equal Society). Retrieved 18 August 2002 from www.gender.go.jp.

Naikakufu (Japanese Cabinet Office) (2002). *Heisei 13 Nendo Danjo Kyodo Sankaku Shakai no Keisei no Jokyo ni Kansuru Nenji Houkoku* (FY 2001 Annual Report on the State of the Formation of a Gender Equal Society). Retrieved 18 August 2002 from www.gender.go.jp.

Organization for Economic Co-operation and Development (1999). *OECD in figures*. Paris: Author.

Pharr, S. (1998). "Moralism" and the gender gap: Judgments of political ethics in Japan. *Political Psychology, 19*, 211–236.

Pharr, S. (2000). Officials' misconduct and public distrust: Japan and the trilateral democracies. In S. Pharr & R. D. Putnam (Eds.), *Disaffected democracies: What's troubling the trilateral countries?* (pp. 173–201). Princeton, NJ: Princeton University Press.

Putnam, R. (1976). *The comparative study of political elites.* Englewood Cliffs, NJ: Prentice-Hall.

Putnam, R. D. (2000). *Bowling alone: The collapse and revival of American community*. New York: Simon and Schuster.

Schlozman, K. L., Burns, N., Verba, S., & Donahue, J. (1995). Gender and citizen participation: Is there a different voice? *American Journal of Political Science, 39*, 267–293.

Sekora, J. (1999). *Japanese politics Q and A*. Retrieved 18 August 2002 from www.nobuteru.or.jp/english/activities/special.html.

Seltzer, R., Newman, J., & Leighton, M. (1997). *Sex as a political variable: Women as candidates and voters in U.S. elections*. Boulder, CO: Lynne Rienner.

Skocpol, T. (1992). *Protecting soldiers and mothers*. Cambridge, MA: Harvard University Press.

Sorifu (Office of the Prime Minister) (2000). *Koeki Hojin Hakusho* (Annual White Paper on Public Interest Corporations). Tokyo: Okurasho Insatsukyoku.

Speicher, B. (1994). Family patterns of moral judgment during adolescence and early adulthood. *Developmental Psychology, 30*, 624–632.

Steinberg, B. S. (2001). The making of female presidents and prime ministers: The impact of birth order, sex of siblings, and father-daughter dynamics. *Political Psychology, 22*, 89–110.

Suurmond, J. (1992). *On the border: Male and female voices in the public debate about refugees and migrants*. Utrecht, Netherlands: Rijksuniversiteit.

Thalhammer, K. E. (2001). I'll take the high road: Two pathways to altruistic political mobilization against regime repression in Argentina. *Political Psychology, 22*, 493–519.

Tomz, M., & Wittenberg, J. (1999, September). Interpreting and presenting statistical results. Short course presented at the annual meeting of the American Political Science Association, Atlanta.

Toobin, J. (2000, 30 October). Women in black. *The New Yorker,* p. 48.

Tsunoda, K. (2002). Difference in the formation of attitude toward nuclear power. *Political Psychology, 23*, 191–204.

Verba, S., Nie, H. N., & Kim, J. (1978). *Participation and political equality: A seven-nation comparison*. Cambridge: Cambridge University Press.

Walker, L. (1984). Sex differences in the development of moral reasoning: A critical review. *Child Development, 55*, 677–691.

Wark, G., & Krebs, D. (1996). Gender and dilemma differences in real-life moral judgment. *Developmental Psychology, 32*, 220–230.

Watts, M. W., & Feldman, O. (2001). Are nativists a different kind of democrat? Democratic values and "outsiders" in Japan. *Political Psychology, 22*, 639–663.

World Bank (2001). *A database of gender statistics.* Retrieved 18 August 2002 from www.worldbank.org/data/wdi2001/pdfs/tab1_3.pdf.