
Gender and Cooperation: Explaining Loan Repayment in Micro-Credit Groups*

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Does gender affect cooperation? In this paper we analyze the effects of gender and group gender composition on prosocial behavior. We make two competing predictions: one based on literature suggesting that women are more cooperative than men, the other building on research regarding the effect of expectations on behavior. Using data drawn from micro-credit borrowing groups, we find that gender composition, not gender per se, is correlated with the likelihood that individuals will default on loan payments. The findings suggest that behavior which might appear to be a consequence of inherent gender differences more likely results from expectations associated with group gender composition.

Are women more cooperative than men? Observation suggests that they may be. At a minimum, people expect to see differences, but the evidence is decidedly mixed. Some studies find that women cooperate more than men; others find that they cooperate less. Still other research suggests that it is not gender itself that affects behavior; rather, the composition of groups accounts for differences in cooperation levels. In the present study we provide new data regarding this issue, with a focus on cooperation in micro-credit borrowing groups. We distinguish between gender and the gender composition of these groups to evaluate their effects on one kind of cooperative behavior, the repayment of loans.

GENDER AND GROUP GENDER COMPOSITION

Why do people cooperate? Theoretical work suggests a variety of possibilities. Here we focus on two perspectives found in litera-

ture on cooperation in social dilemma settings, and on gender more specifically. These approaches illuminate the potential effects of gender and group gender composition on cooperation in social dilemmas.

Gender: The Effect of Internalized Values

The first perspective rests on the internal traits of individuals. A well-established tradition in sociology recognizes the importance of internalization as a mechanism for achieving social order. Accordingly, researchers have investigated the extent to which internal states, such as attitudes and values, are correlated with individual behavior. More specifically, they have explored whether people have an ingrained motivation to cooperate. Kerr et al. (1997), for example, find that internalization of moral norms affects the amount of cooperative behavior in social dilemmas. More recent work suggests that human beings are hard-wired to find cooperation intrinsically rewarding (Rilling et al. 2002).

This theoretical perspective governs not only research on cooperation generally, but also on work examining male and female behavior. There is a widespread sense that women and men are different: in particular, that women are more cooperative. Scholars disagree over the sources of these differences. Some suggest that the causes are

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social: women and men occupy different structural positions in society and thus learn that different kinds of behavior are appropriate (Eagly 1987; Fischer and Oliner 1983). Others argue that gender differences are a product of evolutionary pressures and are biologically innate (Lueptow, Garovich-Szabo, and Lueptow 2001). Whatever the cause, the outcome presumably is that women have internalized more prosocial values than have men (Beutel and Marini 1995).

These differences in values, in turn, are reflected in action. Meta-analyses of research on gender find clear differences in certain aspects of male and female behavior (Eagly 1987, 1995). Although the context of the interaction matters,¹ “[i]n general, women tend to manifest behaviors that can be described as socially sensitive, friendly, and concerned with others’ welfare, whereas men tend to manifest behaviors that can be described as dominant, controlling, and independent” (Eagly 1995:154). Experimental research in social dilemma settings provides further evidence that women are more cooperative than men. Eckel and Grossman (1998), for example, find that when confounding factors (such as risk) are eliminated, women’s behavior is less “selfish” than men’s (also see Seguíno, Stevens, and Lutz 1996).

This research suggests that in social dilemmas, women will exhibit more cooperative behavior than men. That is, when tension exists between the individual interest and the welfare of the group as a whole, women are more likely to make choices that contribute to group welfare.

Yet, although a variety of studies provide evidence that women express more prosocial values and engage in more cooperative behavior, others produce contradictory results. Some find that women contribute less in social dilemma-type situations (Brown-Kruse and Hummels 1993; Sell, Griffith, and Wilson 1993; Sell and Wilson 1991). Others find little difference between

men’s and women’s behavior (Stockard, van de Kragt, and Dodge 1988).

Scholars argue and have found empirical support for at least a partial explanation of the inconsistency in these results: some studies confound the individual’s sex with the sex composition of the group (Sell et al. 1993). Thus behavior that some have interpreted as reflecting internalized gender norms may actually result from social structure. We follow this suggestion to explore a mechanism that may link group composition with behavior.

Gender Composition: The Effect of Expectations

In regard to the second perspective on gender differences in cooperation, why might group gender composition have an effect on cooperation? Research on expectations suggests one possibility. We know that people tend to conform—to behave in ways consistent with those around them (Asch 1956). The influence of others is so strong that even when conformity is not in an individual’s interest, that person still will be affected by the behavior of other group members (Schroeder et al. 1983). In social dilemmas, for example, actors in cooperative groups are more likely to behave cooperatively than those in groups where other members behave in self-interested ways (Sell 1997).

Further, people possibly do not react simply to others’ behaviors, but to their *expectations* regarding those behaviors (for related discussion, see Allison and Kerr 1994). Accordingly, when people are able to communicate, they are more likely to solve social dilemma problems. It appears that communication allows people to develop a clearer sense of how others are likely to behave (Bicchieri 2002). These expectations then affect their actions.

Why is this the case? One possibility is that expectations about others’ behavior provide the individual with information about actions that will be most appropriate and most productive (Cialdini, Kallgren, and Reno 1991). Another is that people may be less afraid that they will be exploited: they can trust that if they cooperate, others

¹ Eagly and Crowley (1986), for example, explain that men are more likely than women to help strangers.

will reciprocate. Finally, perceptions of cooperativeness may lead to further expectations about how others are likely to respond to the individual's conduct (Cialdini et al. 1991): people who are cooperative may be likely to respond negatively to antisocial behavior. Accordingly, if individuals *expect* that group members will be cooperative, they may be less likely to behave antisocially.²

How do these ideas about expectations clarify the role of group gender composition? An array of literature suggests that in their interpersonal interactions women tend to agree and to be conciliatory, while men tend to disagree and to be more competitive (see, for example, Aries 1976; Carli 1989; Mabry 1985). Whatever the cause of these differences—for example, whether they are due to inherent gender differences or to social context—people *observe* a correlation between gender and behavior. Therefore they have reason to expect that groups of men and groups of women will behave differently (Aries 1996; Lueptow et al. 2001; Ridgeway 1997; Ridgeway and Smith-Lovin 1999). As individuals move into new interactions with unknown people, they carry with them these general expectations of gendered actions (Deaux and Major 1987; Ridgeway and Diekema 1992; also see Orbell, Dawes, and Schwartz-Shea 1994). Thus people entering a group made up largely of men will expect more competition and more self-interested behavior. Those moving into groups made up of women, by contrast, will expect to find norms of cooperation. In turn, if people expect that women will be cooperative, then when a group contains more women, people—both men and women—will respond by behaving more cooperatively.

Existing research is consistent with this conclusion. Some studies find that the sex of an experimental partner affects an individual's behavior (Nowell and Tinkler 1994; Solnick 2001). For example, both men and women are more aggressive when interacting with men (Borden 1975) and behave in more

stereotypically female ways when interacting with women (Carli 1989). Men and women behave differently in same-gender than in mixed-gender groups (Cadsby and Maynes 1998; Sell 1997). In addition, information about group members' gender affects cooperation levels (Sell 1997).

MICRO-CREDIT BORROWING GROUPS

We explore the effects of gender and group gender composition on cooperation by examining a compelling natural setting: repayment in micro-credit borrowing groups. *Micro-credit* is the term for small loans (as low as \$500) made by mostly nonprofit agencies to the owners of "micro-businesses." A micro-business is "a sole-proprietorship, partnership or family business that has fewer than five employees" and that "can initially utilize a loan of under \$15,000" (Self-Employment Learning Project 1994:xi). Such business owners are often considered to be high-risk borrowers by standard bank criteria. Accordingly, borrowers of micro-credit tend to be people who cannot easily obtain loans through traditional banking channels.

Although micro-credit is found primarily in developing countries (Woolcock 1998), it has become popular in Western industrialized nations as well. In the United States, micro-credit groups have existed since at least the late 1980s (Anthony 1997; Edgcomb, Klein, and Clark 1996). By 1997 approximately 200 U.S. micro-credit programs had lent more than \$126 million to micro-business entrepreneurs, had assisted in the creation of more than 30,000 new businesses, and had served more than 170,000 clients (Self-Employment Learning Project 1997).

Whereas some micro-creditors lend directly to individuals, others require that borrowers join a "borrowing group" which is responsible for making lending decisions. Typically a group will approve one of its members for a loan and will notify the lender of this decision. The lender then will issue a check to the individual borrower. After a specified number of payment periods (usually three), the group may approve a loan for another individual. A lender, however, will

² For a contrasting argument see Dawes, van de Kragt, and Orbell (1988), who find that expectations based on explicit promises of cooperation between group members in one-shot prisoner's-dilemma-type games do not always increase cooperation.

make no new loans unless existing borrowers are current on their payments. Thus a key feature of borrowing groups is that individuals are responsible for repaying their own loans, but all group members' access to credit is affected by an individual's failure to repay. Although an individual who already has received a loan might have incentives to default on the payments, such a decision carries negative consequences for the entire group.

These characteristics of micro-credit borrowing groups create a useful setting for distinguishing between the effects of gender and of group gender composition on cooperation. Much of the relevant research has been conducted in experimental settings that create various kinds of social dilemmas—prisoner's dilemma games, ultimatum games, and so forth—and that allow for the control of group gender composition. Micro-credit groups are naturally occurring groups in which there is also some level of tension between the interests of an individual borrower and those of the group. They conform most closely to repeated multiperson prisoner's-dilemma-type games that allow communication among actors.³ Though they do not allow as much control as do experiments, micro-credit groups also provide a setting in which individuals can choose to behave cooperatively (by repaying their loans) or antisocially (by defaulting on their payments).⁴ In addition, groups differ in the numbers of male and female members. Researchers using experimental settings control the groups' sex composition. Micro-credit groups in contrast, provide an opportunity to observe the relative effects of gender and group gender composition on behavior in a naturally occurring situation.

In the micro-credit context, a decision to default saves the individual money but eliminates others' access to loans. Repayment, by contrast, preserves this access. Thus repay-

ment of loans represents one kind of cooperative behavior. According to the theoretical view that women internalize prosocial values more strongly than men, we would expect that women will be less likely to default on their loan payments.

Hypothesis 1: Women will be less likely than men to default on loan payments.

The literature on the expectations associated with group gender composition suggests a different prediction. In the context of micro-credit groups, this line of reasoning would suggest that in groups with a higher proportion of women, people will expect others to cooperate, and also may expect to experience more disapproval if they default. Therefore, in female-dominated groups, individuals—both men and women—will be more likely to repay their loans.

Hypothesis 2: The higher the proportion of females in a group, the less likely individuals will be to default on loan payments.

METHODS

We test these hypotheses using data from borrowing groups associated with a large micro-creditor, Working Capital. Based primarily in New England, Working Capital is a nonprofit organization that uses borrowing groups to issue loans to small business owners.⁵ It advertises in communities, inviting residents to a gathering in which they can meet other small business owners and learn about opportunities to obtain loans. People with a wide variety of business interests attend. Businesses include producers of homemade foodstuffs, crafters who sell their wares at craft fairs, bookkeepers and daycare providers who work from their homes, and small retail shops and hairdressers.

At the meetings, held in local community venues, Working Capital representatives explain how their micro-credit lending system works. Then, during the meeting, with the assistance of the representative, interested individuals form borrowing groups containing four to eight members (with a mean size

³ Unlike participants in many experiments, individuals in micro-credit groups make decisions sequentially rather than simultaneously.

⁴ Because people who turn to micro-credit often have negative credit ratings, the prospect of further black marks on their credit rating that reduce the likelihood of future bank loans may not be much of a deterrent.

⁵ In 2001 Working Capital merged with a large international nonprofit micro-creditor named ACCION International.

of six). These newly formed groups establish a time and place for future meetings. Once they are established and have completed a brief business training session with materials provided by Working Capital, members can begin applying for loans.

Our data are taken from a telephone survey conducted in 1996, consisting of a random sample of all former and active members of Working Capital borrowing groups. The survey gathered information from 298 individuals who belonged to 150 different groups.⁶ From this survey we obtained data regarding respondents' previous credit experiences (whether they had ever obtained a traditional bank loan), as well as demographic information such as household income.

We then matched the survey data with Working Capital's borrower database, which included information about individual borrowers' loan histories and about the borrowing groups they belonged to, such as the sex of group members, total number of loans borrowed within each group, and the group's

start date. The data set thus included information on each borrower's gender, the gender composition of the borrowing group to which the borrower belonged, and whether that individual had defaulted on loan payments.

The *independent variables* are gender and group gender composition. Gender is coded 1 for female and 0 for male. Overall, almost two-thirds of the participants are women. To operationalize gender composition, we calculate the percentage of group members who are female. The groups range from 0 to 100 percent female, with a mean of 59 percent. (For descriptive statistics and correlations, see Tables 1 and 2.)

We also control for several individual- and group-level variables (see Tables 1 and 2). Individual-level variables include ever having received a bank loan and annual household income. Ever having received a loan is coded 1; never having received a loan is coded 0. Annual household income is coded 1 = <\$10,000, 2 = \$10–20,000, 3 = \$21–30,000, 4 = \$31–40,000, 5 = \$41–50,000, and 6 = \$51–60,000.

Group-level variables include the number of years the borrowing group has existed and the total number of loans obtained by other members of the respondent's group. Long-standing groups have had more opportunity to borrow, and therefore incur a

⁶ The total sample included 477 valid names, for a 63 percent response rate. Respondents were somewhat more likely than nonrespondents to be recently active in a borrowing group, and were more likely to have borrowed. Respondents were no more likely than nonrespondents to come from successful groups.

Table 1. Working Capital Member and Group Characteristics

Characteristics	Mean	SD	N
Default = 1	.08	.28	238
Household Income Range: 1–6	3.08	1.51	238
Ever Received Any Bank Loan: 1 = Yes	.75	.43	238
Female = 1	.63	.48	238
% Female in Group	.59	.28	238
Group Loans (Range: 0–34)	10.4	7.9	238
Group Tenure (Range: < 1 year–4 years)	1.8 years	.99	238

Table 2. Correlations for Borrower Characteristics

	Default	Income	Borrow	Female	% Female	Loans	Tenure
Default	1.00						
Income	-.01	1.00					
Previous Borrowing	-.001	.35**	1.00				
Female	-.21 **	-.14*	-.08	1.00			
% Female in Group	-.25 **	.002	-.05	.51**	1.00		
Group Loans	.12	-.09	-.15*	-.04	-.14*	1.00	
Group Tenure	-.02	.01	.06	-.01	.04	.39**	1.00

* $p \leq .05$; ** $p \leq .01$

greater risk of default, but also have had more time to observe and interact with group members. Groups that borrow fewer loans may have higher repayment rates.

The *dependent variable*, cooperation in the context of micro-credit borrowing groups, is indicated by timely loan repayment. We rely on a measure of *nonpayment*, namely default. As defined by Working Capital, default occurs when a member's loan payment is 120 or more days past due. By defaulting on a loan, a group member essentially eliminates other group members' access to loans. Default is coded 1; never having defaulted is coded 0.

People who borrowed no loans, and therefore had no opportunity to repay, are excluded from the analysis. Some respondents also are missing income data; they too are excluded, leaving an *N* of 238.⁷

RESULTS AND DISCUSSION

Because borrowing groups include both men and women, we can compare men's and women's behavior under conditions in which the group's gender composition varies. We use logistic regression to examine the effect of the independent variables—gender and percent female—on individual default. Because our data include both individual- and group-level variables, the analysis accounts for the clustering of individuals within groups. All individuals who are members of a group have the same values for each of the group-level variables; thus observations are independent across, but not within, groups. We control for this situation with a robust variance estimate adjusted for the group clustering to weight the residuals appropriately (using the Huber/White/sandwich estimator provided in STATA-7).

The results of this analysis show that when only individual gender is included (see Table 3, Model 1), women appear to be less likely than men to default. These findings are consistent with the view that women are inherently more cooperative than men. When group gender composition is added to the model, however, individual gender is no longer statistically significant (see Table 3,

Model 2). Instead group composition—percent female—is statistically significant at the .01 level. Thus, in line with the expectation-based prediction, individuals who belong to groups containing a higher proportion of women are less likely to default on their loan payments.⁸

The results suggest that gender does not affect behavior directly. Instead the social construction of gender—and related expectations regarding cooperation norms—is important. Are other interpretations of these results possible? Might the findings be due to some other mechanism not identified here? We explore several possibilities.

One prime candidate is status. Insofar as gender is a status characteristic in the United States, effects that appear to be a result of gender may actually be due to men's and women's differing status. A focus on status, however, would lead to different predictions. Sell (1997), for example, relies on status characteristics theory to predict that gender and gender composition will exert an interaction effect on cooperation. Her study finds partial support for this prediction. We conduct further analysis to examine this possibility in the micro-credit setting, and find no statistically significant interaction effect of gender and group gender composition on likelihood of default (see Table 3, Model 3).

What is the reason for this difference in results? A scope condition for status characteristics theory is that individuals are group-oriented. Sell applies the theory to a public good situation where individuals may be both individually and group-oriented, and where, as she admits, the scope condition is not fully met. The micro-credit setting also includes aspects of a public good situation. It may be, however, that the individual incentives are stronger in micro-credit borrowing groups than in Sell's experimental setting.

⁷ By replacing missing data with the mean income, we produced substantively identical results.

⁸ We considered the possibility that the correlation between gender and group gender composition ($r = .51$) might be skewing our results. We do not think this is the case, however: adding gender composition to the model produces only a small change in the standard error for gender. Further, examination of variance inflation factors indicates that the correlation between gender and percent female does not significantly increase the variance of either estimate: VIF (percent female) = 1.3.

Table 3. Unstandardized Logistic Regression Coefficients for Individual Default on Micro-Credit Borrower Characteristics

Independent Variables	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	-1.85** (.71)	-.93 (.74)	-.82 (.79)	-.98 (.79)	-.95 (.76)	.45 (1.28)
Household Income	-.07 (.16)	-.09 (.17)	-.10 (.17)	-.09 (.17)	-.09 (.17)	-.16 (.23)
Previous Borrowing	.13 (.53)	.17 (.56)	.19 (.56)	.18 (.57)	.23 (.57)	-.12 (.60)
Group Loans	.06† (.04)	.06 (.04)	.06 (.04)	.06 (.04)	.07† (.04)	.02 (.04)
Group Tenure	-.24 (.28)	-.15 (.26)	-.14 (.27)	-.15 (.27)	-.19 (.28)	-.21 (.31)
Female	-1.54** (.54)	-.82 (.59)	-1.28 (1.02)	-.83 (.60)	-.87 (.61)	-.28 (.84)
% Female in Group	—	-2.86** (1.14)	-3.22* (1.59)	-2.78** (1.02)	-2.79* (1.15)	-4.47* (1.99)
Female x % Female	—	—	.97 (2.04)	—	—	—
Same-Sex Groups	—	—	—	.09 (.60)	—	—
Service Business	—	—	—	—	-.07 (.51)	—
Retail Business	—	—	—	—	.19 (.68)	—
Frequency of Contact	—	—	—	—	—	.15 (.36)
-2 Log-Likelihood	-61.7	-58.4	-58.3	-58.4	-57.9	-37.73
Wald X ² (Degrees of Freedom)	11.9* (5)	16.8** (6)	19.8** (7)	20.7** (7)	21.5** (8)	13.1† (7)
N	238	238	238	238	238	150

Note: Robust errors are shown in parentheses and are calculated with the Huber/White/sandwich estimator (with cluster) in STATA-7.

† $p \leq .10$; * $p \leq .05$; ** $p \leq .01$

Status characteristics theory therefore may not produce accurate predictions here.

A second possibility is that identity processes are at work. Identity approaches suggest that individuals have a greater sense of identification with groups in which people are more like them, and therefore are more likely to behave in prosocial ways. Again, this approach produces predictions that are inconsistent with our findings. It suggests that levels of repayment will be high in both all-male and all-female groups. We find, by contrast, that members of groups with a higher proportion of women are less likely to default, while members of groups with a majority of men are more likely to default. (For default rates across groups with different gender compositions, see Table 4.).

We examine this possibility further in the multivariate analysis by introducing a dummy variable for groups with 100 percent sex composition, either all-male or all-female. In this model, the "percent female"

variable measures sex composition in mixed-sex groups only. We find no statistically significant effect of same-sex groups on the likelihood of default, but percent female is still significant (see Table 3, Model 4).

A third possibility is that gender composition is associated with other differences, and that these differences account for the results. For example, women in female-dominated groups may be involved in certain types of business, or perhaps they interact

Table 4. Percentage of Members Who Default Across Groups With Different Gender Compositions

Gender Composition	N	% Members Defaulting
0-33% Female	58	17.2
34-66% Female	74	10.8
67-100% Female	106	2.8
Chi-square = 10.2**		
df = 2		
N = 238		

** $p < .01$ (two-tailed test)

more frequently and therefore are more able to exercise social control. We investigate both of these possibilities. Members of micro-credit groups operate retail, service, and production businesses, but groups in which members pursue common types of business are no more likely to be high-female than high-male. Further, men and women are equally likely to operate service or retail businesses, the great majority of business types. Women, however, are more likely to operate production businesses: 22 percent of women operate a production business, compared with only 11 percent of men. Yet controlling for business type (production-type businesses are the excluded category) does not affect the likelihood of default nor change the effect of percent female (see Table 3, Model 5). Further analyses show that frequency of interpersonal contact also does not affect default (see Table 3, Model 6).⁹

A final possible interpretation of our results is that people (both men and women) simply have been socialized to treat women better than they treat men. Our data cannot eliminate this possibility. Nonetheless, we think it is unlikely. It is easy to think of situations in which both women and men treat women badly. If people indeed were more cooperative when they interacted with women, we would expect women to enjoy much more favorable social outcomes. Further research, however, could explore this possibility. The argument made here would suggest that expectations which produce greater cooperation in the micro-credit setting could lead to antisocial behavior in other situations. Thus researchers must consider expectations in conjunction with the incentives created by particular conditions to develop predictions specific to those conditions.

CONCLUSION

In this study we explored the effects of gender and group gender composition on

cooperation. We found that in a naturally occurring social dilemma setting—micro-credit borrowing groups—women are no more cooperative than men. Group gender composition matters, however. In groups with a higher proportion of women, individuals are less likely to default on their loan payments. We argue that this behavior is a consequence of different expectations based on the gender composition of the group.

With this paper we add to the growing body of experimental work on gender and cooperation. Our study, of course, does not resolve existing questions about the effects of gender and gender composition on behavior. Rather it provides data from a naturally occurring setting—data that complement existing experimental work. We admit that the micro-credit setting does not provide the same level of control as experimental studies, nor does it allow us to identify the relevant payoff structures as precisely. Yet it provides relevant behavioral data from an alternative context. By supplementing experimental data with research in natural settings, we can evaluate more fully the usefulness of our theories for explaining social phenomena.

The present research is consistent with work arguing that understanding the effects of gender on social outcomes requires something more than correlating individual traits with sex (Ridgeway and Smith-Lovin 1999; Sell et al. 1993). Rather, outcomes are affected by our assumptions about gender and by the contexts in which we interact. One outcome may be that gender inequality is reinforced (Ridgeway 1997). Here we suggest another. We show how gendered expectations in conjunction with a group's sex composition affect cooperation. Behavior that might seem at first glance to be a consequence of inherent gender differences actually results from expectations associated with group gender composition.

REFERENCES

⁹ We have data on the frequency of contact for a subset of our original sample ($n = 150$). This subset does not differ from the full sample by gender, gender composition, or likelihood of default. Contact is measured as 0 = no contact outside group, 1 = once a month, 2 = twice a month, 3 = once a week, 4 = more than once a week.

- Allison, Scott T. and Norbert L. Kerr. 1994. "Group Correspondence Biases and the Provision of Public Goods." *Journal of Personality and Social Psychology* 66:688-98.
- Anthony, Denise. 1997. "Microlending Institutions: Using Social Networks to Create Productive

- Capabilities." *International Journal of Sociology and Social Policy* 17:156-78.
- Aries, Elizabeth. 1976. "Interaction Patterns and Themes of Male, Female, and Mixed Groups." *Small Group Behavior* 7(1):7-8.
- . 1996. *Men and Women in Interaction*. New York: Oxford University Press.
- Asch, Solomon E. 1956. "Studies of Independence and Conformity: A Minority of One Against a Unanimous Majority." *Psychological Monographs* 70:9.
- Beutel, Ann and Margaret Mooney Marini. 1995. "Gender and Values." *American Sociological Review* 60:436-48.
- Bicchieri, Cristina. 2002. "Covenants Without Swords: Group Identity, Norms, and Communication in Social Dilemmas." *Rationality and Society* 14:192-228.
- Borden, Richard J. 1975. "Witnessed Aggression: Influence of an Observer's Sex and Values on Aggressive Responding." *Journal of Personality and Social Psychology* 31:567-73.
- Brown-Kruse, Jamie and David Hummels. 1993. "Gender Effects in Laboratory Public Goods Contribution: Do Individuals Put Their Money Where Their Mouth Is?" *Journal of Economic Behavior and Organization* 22:255-67.
- Cadsby, C. Bram and Elizabeth Maynes. 1998. "Gender and Free Riding in a Threshold Public Goods Game: Experimental Evidence." *Journal of Economic Behavior and Organization* 34:603-20.
- Carli, Linda L. 1989. "Gender Differences in Interaction Style and Influence." *Journal of Personality and Social Psychology* 56:565-76.
- Cialdini, Robert B., Carl A. Kallgren, and Raymond R. Reno. 1991. "A Focus Theory of Normative Conduct: A Theoretical Refinement and Reevaluation of the Role of Norms in Human Behavior." *Advances in Experimental Social Psychology* 24:201-34.
- Deaux, Kay and Brenda Major. 1987. "Putting Gender Into Context: An Interactive Model of Gender-Related Behavior." *Psychological Review* 94:369-89.
- Dawes, Robyn, Alphons van de Kragt, and John Orbell. 1988. "Not Me or Thee but We: The Importance of Group Identity in Eliciting Cooperation in Dilemma Situations: Experimental Manipulations." *Acta Psychologica* 68:83-97.
- Eagly, Alice H. 1987. *Sex Differences in Social Behavior: A Social-Role Interpretation*. Hillsdale, NJ: Erlbaum.
- . 1995. "The Science and Politics of Comparing Women and Men." *American Psychologist* 50:145-61.
- Eagly, Alice H. and Maureen Crowley. 1986. "Gender and Helping Behavior: A Meta-Analytic Review of the Social Psychological Literature." *Psychological Bulletin* 100:283-308.
- Eckel, Catherine C. and Philip J. Grossman. 1998. "Are Women Less Selfish Than Men? Evidence From Dictator Experiments." *Economic Journal* 108:726-35.
- Edgcomb, Elaine, Joyce Klein, and Peggy Clark. 1996. *The Practice of Microenterprise in the U.S.* Washington, DC: Aspen Institute.
- Fischer, Claude and Stacey Oliner. 1983. "A Research Note on Friendship, Gender, and the Life Cycle." *Social Forces* 62:124-32.
- Kerr, Norbert L., Jennifer Garst, Donna A. Lewandowski, and Susan E. Harris. 1997. "That Still, Small Voice: Commitment to Cooperate As an Internalized Versus a Social Norm." *Personality and Social Psychology Bulletin* 23:1300-11.
- Lueptow, Lloyd B., Lori Garovich-Szabo, and Margaret B. Lueptow. 2001. "Social Change and the Persistence of Sex Typing: 1974-1997." *Social Forces* 80:1-36.
- Mabry, Edward. 1985. "The Effects of Gender Composition and Task Structure on Small Group Interaction." *Small Group Behavior* 16:75-96.
- Nowell, Clifford and Sarah Tinkler. 1994. "The Influence of Gender on the Provision of a Public Good." *Journal of Economic Behavior and Organization* 25:25-36.
- Orbell, John, Robyn Dawes, and Peregrine Schwartz-Shea. 1994. "Trust, Social Categories, and Individuals: The Case of Gender." *Motivation and Emotion* 18:109-28.
- Ridgeway, Cecilia. 1997. "Interaction and the Conservation of Gender Inequality: Considering Employment." *American Sociological Review* 62:218-35.
- Ridgeway, Cecilia and David Diekema. 1992. "Are Gender Differences Status Differences?" Pp. 157-80 in *Gender, Interaction, and Inequality*, edited by Cecilia Ridgeway. New York: Springer.
- Ridgeway, Cecilia and Lynn Smith-Lovin. 1999. "The Gender System and Interaction." *Annual Review of Sociology* 25:191-216.
- Rilling, James K., David A. Gutnam, Thorsten R. Zeh, Giuseppe Pagnoni, Gregory S. Berns, and Clinton D. Kilts. 2002. "A Neural Basis for Social Cooperation." *Neuron* 35:395-405.
- Schroeder, David A., Thomas D. Jensen, Andrew J. Reed, Debra K. Sullivan, and Michael Schwab. 1983. "The Actions of Others As Determinants of Behavior in Social Trap Situations." *Journal of Experimental Social Psychology* 19:522-39.

- Seguino, Stephanie, Thomas Stevens, and Mark A. Lutz. 1996. "Gender and Cooperative Behavior: *Man Rides Alone*." *Feminist Economics* 2:1-21.
- Self-Employment Learning Project. 1994. *Directory of U.S. Microenterprise Programs*, edited by Margaret Clark, Tracy Huston, and Barbara Meisler. Washington, DC: Aspen Institute.
- . 1997. *Directory of U.S. Microenterprise Programs*, edited by C. Alexander Severens and Amy Kays. Washington, DC: Aspen Institute.
- Sell, Jane. 1997. "Gender, Strategies, and Contributions to Public Goods." *Social Psychology Quarterly* 60:252-65.
- Sell, Jane, W.I. Griffith, and Rick K. Wilson. 1993. "Are Women More Cooperative Than Men in Social Dilemmas?" *Social Psychology Quarterly* 56:211-22.
- Sell, Jane and Rick Wilson. 1991. "Levels of Information and Public Goods." *Social Forces* 70:107-24.
- Solnick, Sara J. 2001. "Gender Differences in the Ultimatum Game." *Economic Inquiry* 39:189-200.
- Stockard, Jean, Alphons J.C. van de Kragt, and Patricia J. Dodge. 1988. "Gender Roles and Behavior in Social Dilemmas: Are There Sex Differences in Cooperation and in Its Justification?" *Social Psychology Quarterly* 51:154-63.
- Woolcock, Michael. 1998. "Social Capital and Economic Development: Toward a Theoretical Synthesis and Policy Framework." *Theory and Society* 27:151-208.

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