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He Says, She Says

Exploring Patterns of Spousal Agreement in Bangladesh

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ABSTRACT

Participation in household decisions and control over assets are often used as indicators of bargaining power. Yet spouses do not necessarily provide the same answers to questions about these topics. We examine differences in spouses' answers to questions regarding who participates in decisions about household activities, who owns assets, and who decides to purchase assets. Disagreement is substantial and systematic, with women more likely to report joint ownership or decision making and men more likely to report sole male ownership or decision making. Analysis of correlations between agreement and women's well-being finds that agreement on joint decision making/ownership is generally positively associated with beneficial outcomes for women compared with agreement on sole male decision making/ownership. Cases of disagreement where women recognize their involvement but men do not are also positively associated with good outcomes for women, but often to a lesser extent than when men agree that women are involved.

Keywords: intrahousehold; bargaining power; measurement; gender

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1. INTRODUCTION

The rich literature on intrahousehold economics has evolved from simple unitary models that often assumed household members had identical preferences to more complex collective models where each member's relative bargaining power influences the extent to which their preferences are reflected in household decisions. Given that bargaining power is a multifaceted and subjective concept, this theoretical shift has inspired new research on how best to conceptualize and measure bargaining power. Survey questions examining who is involved with decision making and who owns or controls resources are examples of popular measures. Despite the widespread acceptance that some form of collective model best describes household decision making, the response of only one household member to these subjective questions is generally deemed sufficient. Surveys have only recently begun to solicit the perspectives of multiple household members, yet there is little consensus on what to do with dual and often conflicting responses. Little analysis investigates agreement between these various responses. In this paper we seek to close this gap in the literature by examining spousal agreement on decision making and asset ownership and the relationship of that agreement with women's outcomes in Bangladesh.

A growing body of evidence demonstrates the importance of women's decision making and ownership and control of assets for improving the well-being of women and their children (Allendorf 2007a; Beegle, Frankenber, and Thomas 2001; Doss 2006; Duflo 2003; Patel et al. 2007; Quisumbing and Maluccio 2003; Reggio 2011). As a result, strengthening women's involvement in decision making and their asset rights is now a priority of many international nongovernmental organizations, multilateral organizations, and governments (Deere et al. 2013; FAO 2011). This policy push has increased interest in systematically collecting survey measures of these concepts. For example, sex-disaggregated, individual-level asset ownership indicators will be collected to monitor progress toward achieving a subset of the Sustainable Development Goals.

Typically, these data have been collected from one household member, but more recently, data collection efforts have interviewed multiple household members regarding their role in decision making and asset ownership. Recent studies conducted through the Gender Asset Gap Project, the Gender, Assets, and Agriculture Project (GAAP), the Women's Empowerment in Agriculture Index (WEAI), the Gender, Land, and Asset Survey (GLAS), the Living Standards Measurement Study–Integrated Surveys on Agriculture (LSMS-ISA), the Demographic and Health Surveys (DHS) Program, and the Methodological Experiment on Measuring Asset Ownership from a Gender Perspective (MEXA),¹ among others, have collected detailed data on individual control over assets, decisions, and rights.

Many such surveys ask the same set of questions to multiple household members, an approach that generates a wealth of information but also creates the challenge of determining how to analyze multiple and possibly contradictory answers to the same question. One option for analyzing such data is to assess the responses only of the individual most likely to be knowledgeable on a specific topic. However, if researchers plan to ignore the responses of additional household members, interviews with multiple household members waste valuable resources and respondent time. A second option is to compare men's and women's responses across households. This approach has been used to analyze how the different responses of men and women are related to outcomes. A third option is to compare the responses of husbands and wives within households. While some work has analyzed whether spouses provide the same answer, little has looked at how this agreement or lack thereof is related to outcomes.²

¹ See the following websites for more information on each of these projects: Gender Asset Gap Project (<http://genderassetgap.org/>), GAAP (<http://gaap.ifpri.info/>), WEAI (www.ifpri.org/topic/weai-resource-center), GLAS (www.icrw.org/where-we-work/measuring-property-rights-gender-land-and-asset-survey), LSMS-ISA (<http://econ.worldbank.org/WBSITE/EXTERNAL/EXTDEC/EXTRESEARCH/EXTLSMS/0,,contentMDK:23512006~pagePK:64168445~piPK:64168309~theSitePK:3358997,00.html>), DHS (<http://dhsprogram.com/>), and MEXA (http://siteresources.worldbank.org/INTLSMS/Resources/3358986-1423600559701/MEXA_Technical_Report.pdf).

² Becker, Fonseca-Becker, and Schenck-Yglesias (2006) and Allendorf (2007b) are the two exceptions.

In this paper, we contribute to the literature in this third area and empirically examine spousal concordance on these issues in Bangladesh.

Simply considering men's or women's responses to questions about decision making and asset ownership fails to recognize that individuals live within the context of households and communities. Failure of the state, community, or one's family to acknowledge one's rights over assets may affect bargaining power. In particular, whether a woman's husband recognizes her decision-making roles or property rights may affect the extent to which she influences the processes and outcomes within the household. According to both Sen (1990) and Agarwal (1994), bargaining power is conditioned by context, including policies, social norms, and perceptions about each household member's contribution. Thus, it may be important to understand not only how women within a household perceive their decision-making ability and control over assets but also how their husbands perceive their role.

In addition, we might expect that households in which spouses are in concordance are able to obtain better outcomes. Such households may demonstrate less private information and less conflict. However, it may also be the case that the content of agreement matters more than agreement in and of itself. For example, a couple's agreement on a husband's involvement alone may carry a different significance than agreement on the couple's joint participation. If a woman is involved in decision making and has control over assets, and that involvement is recognized, she may be better equipped to leverage resources and bargaining power to fulfill her needs, resulting in improvements in indicators of well-being. Thus, we examine the relationship between specific types of agreement and outcomes, and we find that the content of agreement does matter for several of the outcomes examined.

To analyze spousal concordance, we use responses to survey questions about decision making and asset ownership designed to calculate two components of the WEAI (Alkire et al. 2013), a measurement of empowerment, agency, and inclusion of women in the agriculture sector. The survey module was administered to both the primary male and female decision makers in each household. First, we analyze the extent to which husbands and wives provide the same responses about who makes decisions and owns assets. We find that disagreement is both substantial and systematic; women's roles in decision making and asset ownership are much more likely to be reported by women than by men. The differences in responses are most pronounced for decision making about household activities and somewhat less so for asset ownership. Although spouses do not necessarily provide the same answer, we find that a simple indicator of whether they do so is not correlated with outcomes of women's well-being.

We therefore develop a typology of response combinations that incorporates two features: whether spouses provide the same answer and the content of those answers. In particular, we compare outcomes wherein the wife says that she is involved in decision making or owns assets but her husband disagrees with outcomes wherein both the husband and wife say that she is involved. Overall, when women report that they are involved in decisions or own assets, even if their husbands do not report wives' involvement, women have better outcomes relative to cases in which spouses agree that the husband makes a decision or owns an asset without his wife. When examining decisions about activities, this positive correlation is significantly stronger when the husband also acknowledges the wife's role in decision making. In other words, the wife's perception alone matters, but the association is strongest when both spouses agree she is involved. This pattern is less clear for responses to questions about control over assets.

The paper proceeds as follows: Section 2 reviews the relevant literature, Section 3 discusses the context and data, and Section 4 provides a description of the extent of disagreement in the data. Section 5 examines the correlation of simple agreement with outcomes, and Section 6 examines the correlation of disaggregated agreement categories with outcomes. Section 7 discusses and concludes.

2. RELATIONSHIP BETWEEN SPOUSAL CONCORDANCE, BARGAINING POWER, AND WOMEN'S WELL-BEING

Women's roles in decision making and their control over assets are frequently used as indicators of women's bargaining power.³ Although causality is often hard to establish, the extensive research into the impacts of women's bargaining power suggests that enhancement of women's bargaining power, especially indicators of decision making and asset control, is associated with better outcomes for women (see Doss 2013 for a detailed review). However, the vast majority of the research in this area has relied only on the reports of either the husband or the wife. As surveys are increasingly collecting responses from both a man and a woman within the same household, this allows for comparisons of their answers. Here we review the existing literature that considers whether spouses provide the same answers and whether concordance is associated with good outcomes.

Comparing Responses of Spouses

Researchers in family planning were pioneers in assessing spousal concordance, producing many studies that compared spouses' responses concerning objective reproductive events and subjective personal fertility preferences and attitudes.⁴ Becker (1996) reviews those early studies, finding that whereas the median level of spousal concordance was 76 percent for objective reproductive events, agreement on more subjective fertility indicators ranged from 34 to 79 percent. Bankole and Singh (1998) find a similar range of agreement in spouses' attitudes toward fertility and contraception across 18 developing countries.

Only recently, however, has a literature emerged that analyzes the cross-reports of spouses regarding control over decision making and assets. These questions differ from many of those asked in the fertility studies; they are not objective like the questions on the number of living children. Instead, they solicit subjective perspectives of the processes of decision making and of who owns various types of assets. Unlike subjective questions about fertility preferences, one might reasonably expect spouses to provide similar responses to these questions.

Several studies have identified a lack of concordance between spouse's responses about consumption decisions and women's autonomy (Allendorf 2007a; Anderson, Reynolds, and Gugerty 2016; Deere, and Twyman 2012; Becker, Fonseca-Becker, and Schenck-Yglesias 2006; Ghuman, Lee, and Smith 2006; Jejeebhoy 2002). Covering a wide range of decisions, these studies report that a low of 43 percent of spouses in Ecuador agree on whether wives decide alone, jointly, with permission from someone, or not at all on how to spend their income (Deere and Twyman 2012) and a high of 92 percent of couples in two states of India agree on the identity of the main decision maker for major household purchases, with 92 percent of couples in concordance that the wife does not decide (Jejeebhoy 2002). Not surprisingly, higher levels of agreement are observed when there are fewer response categories. Most of the studies in Asia reveal that husbands report higher levels of wives' involvement in decision making compared with wives' reports (Ghuman, Lee, and Smith 2006; Jejeebhoy 2002). In contrast, Allendorf (2007a) finds that in Nepal wives generally report that they have a larger role in decision making than their husbands acknowledge.

³ These concepts are also considered important components of women's empowerment. For example, in the WEAI, one of the five domains of empowerment focuses on decisions about agricultural production and another domain assesses control over productive resources.

⁴ Reproductive health events in the studies reviewed include cohabitation before marriage, frequency of intercourse, date of union, number of abortions (spontaneous and induced), years married, number of living children, number of live births, number of low-birth-weight infants, current contraceptive use, ever use of family planning, years since last birth, and whether the woman gave birth in the previous year. Fertility preferences and family planning attitudes in the studies reviewed include number of additional children desired, the last birth desired, small family preference, intention to have another child, desire and timing of another child, who decides on family size, desired and ideal family size, and ideal number of sons.

Much less has been written comparing spouses' responses on asset ownership, and those studies that exist tend to focus on agreement regarding joint ownership. One study compares within-couple agreement regarding land and housing ownership in Uganda and South Africa, finding that the majority of couples disagree on whether land or housing is jointly owned. Most partners reporting joint ownership are women (Jacobs and Kes 2014). A second study finds that couples agree that 79 percent of the agricultural parcels of land in Ecuador are owned jointly (Twyman, Useche, and Deere 2015). Women owners report joint ownership of a higher percentage of parcels than do men landowners. In addition, husbands report significantly lower levels of women's participation in agricultural decision making than their wives report.⁵

Is Agreement on Women's Bargaining Power Related to Women's Well-Being?

Although the studies reviewed here document differences in spouses' reports of who makes decisions and owns assets, most do not examine whether concordance between spouses is associated with outcomes. Existing research on how differential responses may affect outcomes is concentrated on assessing the relationship between differences in spouses' fertility preferences and contraceptive behaviors (Bankole 1995; Bankole and Singh 1998; Becker 1996; Mason and Smith 2000). For example, in an analysis of 18 developing countries, Bankole and Singh (1998) find that in all countries analyzed except Côte d'Ivoire, use of modern contraceptive methods is highest when spouses agree that they do not want additional children. In Nigeria, when spouses reported different preferences for having an additional child, the husband's preferences had a greater effect on fertility in smaller families while the wife's desires had a larger effect in couples with more children (Bankole 1995).

Most of the decision-making and asset studies reviewed above deal with the differences in responses of husbands and wives by including both responses independently in regression analyses (Ghuman, Lee, and Smith 2006; Jejeebhoy 2002; Kusago and Barham 2001; Twyman, Useche, and Deere 2015), but the additional information of whether the couple is in concordance is not generally used in the analysis. There are, however, two exceptions, which assess whether differences in spouses' reports on women's participation in decision making affect health behaviors (Allendorf 2007a; Becker, Fonseca-Becker, and Schenck-Yglesias 2006).

Becker, Fonseca-Becker, and Schenck-Yglesias (2006) assess whether women's decision making in western Guatemala is associated with outcomes related to medical care for pregnant women and newborns, using reports from both wives and husbands. Women's decision making is significantly correlated with whether the couple had a plan in place for how to respond to a pregnancy-related emergency, but when both spouses' responses are included in the equation, only the women's report is significant. These regressions also control for whether husbands and wives agree on the wife's role in decision making. The agreement variable did not add significantly to the results for any outcome. In a second study, Allendorf (2007a) models husbands' and wives' reports separately on participation in household decision making in Nepal, finding a positive association between women's autonomy and their use of healthcare services. When both spouses agree that the wife is autonomous, however, the association between women's autonomy and health outcomes is two to three times larger than when modeling women's responses alone.

To the best of our knowledge, no studies explicitly consider whether spousal agreement on women's asset ownership has an impact on women's well-being, but two studies discussed above examine the relationship between agreement on joint asset ownership and decision making (Jacobs and Kes 2014; Twyman, Useche, and Deere 2015).

⁵ In related work, an experimental study in Uganda finds that who you interview affects responses regarding who owns and has various rights over assets. The results demonstrate that individuals within households do not necessarily provide the same responses, but the report does not explicitly compare the responses of spouses (Kilic and Moylan 2016).

In this paper, we contribute to this literature by filling this gap. We assess how spousal agreement, and particularly agreement on women's roles in decision making and control over assets, is related to women's well-being. Moving beyond the focus on fertility and health, we assess how husbands' and wives' acknowledgment of and agreement on wives' bargaining power is associated with a broader variety of outcomes generally associated with women's well-being. We also analyze multiple indicators of bargaining power (both decision making and asset control) in the same setting, allowing for comparisons of these different measures.

3. CONTEXT AND DATA

Context and Data

Women in Bangladesh, as in many South Asian countries, face numerous inequities due to patrilineal and patrilocal kinship systems. According to the Organisation for Economic Co-operation and Development's Social Institutions and Gender Index, Bangladesh is classified as having a "very high" level of discrimination in its social institutions and a "high" level of restriction in resources and assets, ranking 94th out of 108 countries (OECD Development Center 2015). Although Bangladesh's laws are technically secular, the areas of marriage, divorce, alimony, and property inheritance are determined by "personal law," which is based on one's religion or beliefs (Kamal 2010). Thus, for 90 percent of the population, Islamic law applies in these areas. Several family law and property ordinances passed in Bangladesh are actually more favorable toward women than traditional Islamic principles; however, lack of resources and knowledge of the law and adherence to religious rather than national legal frameworks prevent women from using laws to protect their rights ("Property Rights and Resource Governance: Bangladesh" 2010).

In addition, women's autonomy and decision-making power in Bangladesh have historically been low and remain so in many traditional communities (Anderson and Eswaran 2009). Women's work is often done in isolation due to the cultural practice of *purdah*, or seclusion of women, which is present among both the rich and the poor in Bangladesh (Amin 1997). That practice, as well as cultural norms, confines women to a specific set of "female" occupations, which tend to be limited to poultry rearing and paddy husking (Kabeer 2001). Such clear separation of men's and women's economic activities raises the question of the extent to which household decisions are made jointly by spouses. The 2011 Bangladesh DHS data demonstrate that more than half of women report making joint decisions with their husbands on their own healthcare, major purchases, child healthcare, and visits to relatives (NIPOORT, Mitra and Associates, and ICF International 2013). However, those data were collected only from the woman's perspective; we have no information on men's perspectives, which may differ.

Data and Survey Questions Analyzed

Our analysis focuses on spouses' responses to questions from the WEAI modules within the Bangladesh Integrated Household Survey (BIHS). We also utilize several household- and individual-level variables from the household questionnaires as control variables. The BIHS, conducted from 2011 to 2012, was designed and supervised by the International Food Policy Research Institute and administered by Data Analysis and Technical Assistance in Dhaka, Bangladesh. The full sample of the BIHS dataset includes 6,503 households in 325 villages, the primary sampling unit (PSU). The WEAI component of the survey had both a man and a woman respond independently to all modules, but they were not always spousal pairs. We restrict the sample to the 4,947 households in which both the household head and his spouse responded.⁶ We exclude the 7 percent of all households that were headed by women because they did not have spouses to interview. We also omit households that say they do not participate in any of the activities or own any of the assets included in our analysis, though such households represent only a handful of cases (less than 1 percent).

We focus on three potential indicators of women's bargaining power: decision making on household activities, asset ownership, and decision making regarding the purchase of productive assets. Table 3.1 describes those activities and assets. The first set of analyses focuses on decisions around household activities. The wording of the survey question is "When decisions are made regarding the following aspects of household life, who normally makes the decision?" On assets, we analyze the

⁶ As a result, we do not use sampling weights. For these reasons, our analysis cannot be interpreted as representative of rural Bangladesh.

responses to “Who would you say owns most of [asset]” and “Who contributes most to decisions regarding a new purchase of [asset].”⁷

Table 3.1 Main survey questions on decision making and ownership underlying analysis

	Survey questions	Categories examined in analysis
Activities	When decisions are made regarding the following aspects of household life, who is it that normally takes the decision?	Agricultural production, taking crops to market, livestock raising, nonfarm business activity, minor household expenditures, use of family planning
Assets/productive capital	Does anyone in your household currently have any [item]?	Agricultural land, other land not used for agriculture, large livestock, small livestock, poultry, fish pond or fishing equipment, farm equipment (nonmechanized), farm equipment (mechanized), nonfarm business equipment, house/other structures, large consumer durables, small consumer durables, mobile phones, transportation (motorized or nonmotorized)
	Who would you say owns most of [item]?	
	Who contributes most to decisions regarding a new purchase of [item]?	

Source: Bangladesh Integrated Household Survey

The response coding is the same for all three sets of questions. For ease of discussion, here we will just refer to decision making, but this section also applies to the responses for asset ownership and decisions over asset purchases. The response options include the following: self; spouse; self and spouse jointly; other household member; self and other household member(s); spouse and other household member(s); self and other outside people; spouse and other outside people; self, spouse, and other outside people; and someone (or group of people) outside the household. Given the large quantity of potential responses, the number of combinations of possible responses of husbands and wives is too numerous to effectively analyze. Thus, we collapse responses into a smaller number of categories. Because we are primarily interested in the extent to which the couple agrees on whether the wife is a decision maker, we define agreement as whether the husband and wife agree that the decision is made by (1) the husband without the wife, (2) the wife without the husband, or (3) both husband and wife, regardless of whether they say that someone else is also involved. The fourth category of agreement indicates that the couple agrees that neither the husband nor the wife is the decision maker, but that someone else made the decision.⁸ Thus, our agreement measures do not indicate that they gave exactly the same answer, but that they provided the same information about the decision-making role of the husband and wife.

When couples disagree, we are particularly interested in whether they include the wife as a decision maker. As a result, we categorize their responses as follows: (5) wife says she participates in the decision and husband says she does not; (6) husband says wife participates in the decision and wife says she does not; (7) both say wife participates in the decision but disagree on whether the husband is involved; and (8) neither says wife participates in the decision but they disagree on whether the husband or other(s) are involved. Table 3.2 summarizes these response categories.

⁷ The surveys include a number of other questions, including these: who can use [asset] most of the time, who can decide whether to sell [asset] most of the time, who can decide to mortgage or rent [asset] most of the time, who can keep the majority of [asset] in the case a marriage is dissolved because of divorce or separation, and who would you say would keep the majority of [asset] in the case a marriage is dissolved because of death? We chose to exclude the questions related to divorce and death due to the issues of singularity and asset divisibility associated with the response. Furthermore, our preliminary analyses showed that responses were similar across questions of who owns assets and the various rights of alienation. Ultimately, we found that “who owns” and “who can decide on the purchase of a new [item]” offered the most variability in responses, while also being representative of the responses found in this module.

⁸ Although we include the “other decision maker” category in all analyses, we do not interpret it as we do not know who the “other” decision makers are.

Table 3.2 Categorization of couples' responses

Survey responses	Categories examined in analysis
Husband alone; Husband and other	Husband without wife (base category)
Wife alone; Wife and other	Wife without husband
Husband and wife; Husband, wife, and other	Husband and wife jointly
Other	Other
Husband says husband and wife says wife; Husband says husband and wife says couple; Husband says other and wife says wife; Husband says other and wife says couple	Wife acknowledges her ownership/decision making; husband does not
Husband says wife and wife says husband; Husband says couple and wife says husband; Husband says wife and wife says other; Husband says couple and wife says other	Husband acknowledges wife's ownership/decision making; wife does not
Husband says couple and wife says wife; Husband says wife and wife says couple	Both acknowledge wife's ownership/decision making
Husband says other and wife says husband; Husband says husband and wife says other	Neither acknowledges wife's ownership/decision making

Source: Authors' typology.

Note: "Other" may include other household members or those outside the household.

We consider these categories in relation to outcomes that are viewed as beneficial to women's overall well-being, including women's time poverty, women's body mass index (BMI), their use of contraception ever, number of groups in which they are active, and whether they currently have a loan. In Table 3.3, we present the summary statistics on those outcomes as well as for the control variables included in the subsequent analysis. The average BMI of wives in the sample is 20.83, with a standard deviation of 3.54, and the average number of groups in which wives are active is 0.31. Approximately 22 percent of wives experience time poverty, 78 percent have used contraception, and 18 percent currently have a loan. Husbands are, on average, 8.5 years older than their wives and have 0.08 more years of schooling. Households in the sample have, on average, 4.37 members and 0.76 acres of cultivable land. Less than half of the households have access to electricity. On average, couples agree that the household engages in 3.61 activities, out of 6 possible, and that the household owns 5.84 types of assets, out of 14 possible. The vast majority of households are Muslim.

Table 3.3 Summary statistics

Variables	(1) N	(2) Mean	(3) SD	(4) Min	(5) Max
Outcome variables					
Wife worked more than 10.5 hours in a day	4,942	0.22	0.41	0.00	1.00
Wife's body mass index (BMI)	4,928	20.83	3.54	9.87	37.64
Wife's use of birth control ever	4,947	0.78	0.42	0.00	1.00
Number of groups in which wife is active	4,946	0.31	0.49	0.00	4.00
Wife has loan	4,947	0.18	0.25	0.00	0.89

Table 3.3 Continued

Variables	(1) N	(2) Mean	(3) SD	(4) Min	(5) Max
Control variables					
Height of wife, meters	4,947	1.50	0.11	0.00	1.95
Age of husband	4,947	45.02	13.55	20.00	95.00
Age of wife	4,947	36.52	11.65	15.00	99.00
Age difference between husband and wife	4,947	8.51	4.98	-63.00	47.00
Years of education for husband	4,947	3.27	3.97	0.00	16.00
Years of education for wife	4,947	3.19	3.52	0.00	16.00
Education difference between husband and wife	4,947	0.08	3.37	-16.00	14.00
Household size	4,947	4.37	1.55	2.00	17.00
Proportion of males in household, ages 0–15	4,947	0.18	0.17	0.00	0.67
Proportion of men in household, ages 16+	4,947	0.33	0.13	0.00	0.80
Proportion of females in household, ages 0–15	4,947	0.17	0.17	0.00	0.71
Proportion of women in household, ages 16+	4,947	0.33	0.12	0.00	0.83
Presence of husband's mother in household	4,947	0.11	0.32	0.00	1.00
Presence of husband's father in household	4,947	0.03	0.18	0.00	1.00
Electrical connectivity	4,947	0.46	0.50	0.00	1.00
Total cultivable land held by household, converted to acres	4,947	0.76	1.13	0.00	14.16
Number of activities the couple agrees they engaged in	4,947	3.61	1.47	0.00	6.00
Number of asset categories the couple agrees they own	4,947	5.84	2.39	0.00	14.00
Religion	4,947				
Muslim	4,340	87.73			
Hindu	598	12.09			
Christian	9	0.18			

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Variables have been constructed as follows: Number of working hours for wives is calculated using the time allocation module and work definition of the Women's Empowerment in Agriculture Index, and time poverty of wife is a dummy variable equal to 1 if these working hours are greater than 10.5; BMI of the wife is defined according to standard terms as mass in kilograms divided by the square of height in meters; the variable for whether the wife has a loan is a dummy equal to 1 if it is reported that the wife currently has a loan; the variable for birth control is a dummy equal to 1 if the wife reports ever having used birth control methods to delay or avoid pregnancy; age of husband and wife in years is as reported on the household roster, with age difference reported as husband minus wife; the variables for years of education of husbands and wives were counted continuously, where preschool, religious school, and "other" were counted as zero; household size is based on the household roster using the Bangladesh Integrated Household Survey household definition; the variables for age and sex of household members (ages 0–15 and 16+) count the number of these household members in each of these age and sex groups, and divide by the total household size; presence of husband's mother and father in the household are dummy variables equal to 1 if either parent of the husband resides in the household; the variable for electrical connectivity is a dummy equal to 1 if the household has an electricity connection; amount of cultivable land is the total cultivable land owned or operated by the household in the past 12 months in decimals, divided by 100 to convert to acres. The number of activities engaged in and assets owned by the household are calculated by simply counting the number of activities (out of 6 possible options) for which both the husband and wife report that a decision was made and the number of assets (out of 14 categories) for which both husband and wife report that the household owns

4. DO SPOUSES AGREE?

In the first component of our analysis we consider the extent to which spouses agree regarding decision making over household activities and ownership and decision making over assets. The questions were posed only to those who had indicated in a prior question that someone in the household engaged in the activity or possessed the asset. Thus, we begin by examining whether couples provide the same answer when asked, “Does anyone in your household make a decision over [activity] or currently have any [asset]?”

We present the patterns of agreement and disagreement regarding whether the decision is made or the asset is owned in Table 4.1. For each household activity, the first column shows the percentage of cases where the husband and wife disagree on whether the decision is made by someone in the household. Column 2 shows the percentage of cases where the couple agrees the household makes the decision, and column 3 shows the cases where the couple agrees that the household does not make the decision. Column 4 sums the previous two columns to show the total level of agreement, regardless of whether they agree that the household does or does not make the decision. The patterns for asset ownership are presented below those for decision making. Overall, total agreement is high, above 80 percent for all but one activity and above 90 percent for all but one asset. We observe the least total agreement on the use of family planning (78 percent) and the highest total agreement on whether the household possesses large livestock (98 percent).

Table 4.1 Agreement on decision making and ownership of productive capital

	(1)	(2)	(3)	(4)
Variable	Couple disagrees	Couple agrees that household makes decision/ possesses asset	Couple agrees that household does not make decision/ possess asset	Total agreement
<i>Decision making on household activities</i>				
Agricultural production	9.9%	59.5%	30.6%	90.1%
Taking crops to market	16.6%	51.9%	31.5%	83.4%
Livestock raising	14.7%	57.5%	27.8%	85.3%
Minor household expenditures	4.1%	95.9%	0.0%	95.9%
Use of family planning	21.8%	69.4%	8.8%	78.2%
<i>Household possession of assets</i>				
Agricultural land	4.5%	60.3%	35.2%	95.5%
Large livestock (oxen, buffalo)	1.9%	47.3%	50.8%	98.1%
Small livestock (goats, sheep)	3.1%	21.0%	75.9%	96.9%
Chickens, ducks, turkeys, pigeons	3.7%	68.1%	28.2%	96.3%
Fish pond or fishing equipment	8.7%	17.0%	74.3%	91.3%
Farm equipment (nonmechanized)	15.2%	49.2%	35.6%	84.8%
Farm equipment (mechanized)	5.2%	5.1%	89.7%	94.8%
Nonfarm business equipment	10.3%	11.5%	78.5%	90.0%
House (and other structures)	2.8%	96.7%	0.5%	97.2%
Large consumer durables (fridge, TV, sofa)	5.9%	24.2%	69.9%	94.1%
Small consumer durables (radio, cookware)	8.1%	51.6%	40.3%	92.0%
Mobile phone	2.4%	71.4%	26.2%	97.6%
Land for nonagricultural purposes	3.6%	29.4%	67.0%	96.4%
Means of transportation	5.6%	31.3%	63.1%	94.4%

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Sample is 4,947 couples.

The next step of our analysis is to examine the distribution of households across the eight categories of agreement and disagreement described earlier for the three questions of interest: who normally makes the decision regarding [activity], who owns most of each [asset], and who contributes most to decisions regarding a new purchase of [asset]. This analysis can be performed only in the sample of households where the spouses agree that a decision is made or an asset is owned; however, given the high levels of agreement shown in Table 4.1, this selection does not substantially alter the sample. Tables 4.2, 4.3, and 4.4 show the distributions for who decides about activities, who owns assets, and who decides to purchase assets. In all cases each activity or asset is in a separate column, with each row representing a different response category.

With regard to who makes decisions over activities (Table 4.2), the most common responses are that the spouses agree that the husband makes the decision (category 1) or the couple makes the decision together (category 3), or they disagree and the wife says that she is involved but the husband says she is not (category 5). For agricultural production, taking crops to market, and nonfarm business activities, the largest category is agreement that the husband decides without his wife (category 1). However, for livestock raising, minor household expenditures, and use of family planning, more couples agree that they make the decision together (category 3) than agree that the husband alone decides. Depending on the activity, between 46 and 63 percent of couples agree who makes decisions. This falls within the range found in other studies on spousal concordance on decision making in Asia (Allendorf 2007a; Ghuman, Lee, and Smith 2006; Jejeebhoy 2002).

Table 4.2 Agreement and disagreement regarding decision making on activities

		Who normally takes the decision regarding ...					
Variable		Agricultural production	Taking crops to market	Livestock raising	Nonfarm business activity	Minor household expenditures	Use of family planning products
AGREE	Husband	43.5%	41.7%	8.3%	40.5%	17.6%	0.7%
	Wife	0.2%	0.2%	2.1%	0.6%	0.4%	2.0%
	Couple	12.6%	12.9%	37.3%	11.1%	28.4%	59.9%
	Other	0.3%	0.2%	0.3%	0.8%	0.2%	0.0%
	Subtotal	56.6%	55.0%	48.1%	53.1%	46.4%	62.5%
DISAGREE	Wife says wife (individually or jointly); husband does not	36.5%	37.7%	39.2%	38.3%	39.8%	16.2%
	Husband says wife (individually or jointly); wife does not	5.3%	5.2%	4.1%	5.0%	7.2%	2.2%
	Both say wife (individually or jointly)	1.3%	1.5%	0.8%	1.8%	0.9%	0.1%
	Neither says wife (individually or jointly)	0.4%	0.6%	10.5%	1.8%	5.7%	19.0%
	Subtotal	43.4%	45.0%	54.6%	46.9%	53.5%	37.5%
Sample size		2,941	2,568	2,332	1,313	4,034	3,431

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Sample for each decision is couples who agree that decision was made.

There are generally higher levels of agreement regarding who owns assets than who makes decisions. As seen in Table 4.3, more than 80 percent of couples agree on who owns most of the agricultural and nonagricultural land, fish ponds or fishing equipment, nonmechanized and mechanized farm equipment, nonfarm business equipment, and house/other structures. Ownership in those categories is concentrated among husbands, with wives being much less likely to be owners. Agreement is lower in the other asset categories, with less than half of couples agreeing on who owns most of the small livestock (48 percent) and small consumer durables (43 percent).

Table 4.3 Agreement and disagreement regarding who owns assets

		Who owns most of the ...						
Variable		Agricultural land	Non-agricultural land	Large livestock	Small livestock	Poultry	Fish pond or fishing equipment	Non-mechanized farm equipment
AGREE	Husband	55.5%	75.6%	47.7%	26.9%	5.1%	79.4%	77.7%
	Wife	0.5%	0.8%	3.0%	9.6%	45.1%	0.1%	0.2%
	Couple	0.3%	0.4%	3.9%	5.1%	2.3%	0.6%	2.1%
	Other	25.1%	7.6%	6.6%	6.1%	1.3%	2.1%	0.2%
	Subtotal	81.3%	84.4%	61.3%	47.7%	53.8%	82.2%	80.3%
DISAGREE	Wife says she owns (individually or jointly); husband does not	7.5%	6.9%	24.3%	28.3%	26.2%	10.4%	14.3%
	Husband says wife owns (individually or jointly); wife does not	2.3%	2.2%	6.7%	8.4%	7.0%	2.4%	3.5%
	Both say wife owns (individually or jointly)	8.6%	6.1%	5.4%	8.4%	1.4%	4.6%	1.1%
	Neither says wife owns (individually or jointly)	0.3%	0.5%	2.2%	7.3%	11.7%	0.4%	0.4%
	Subtotal	18.7%	15.6%	38.7%	52.4%	46.2%	17.8%	19.3%
Sample size		2,983	1,453	2,338	1,041	3,368	843	2,434

		Who owns most of the ...						
		Mechanized farm equipment	Nonfarm business equipment	House/ other structures	Large consumer durables	Small consumer durables	Mobile phone	Means of transport
AGREE	Husband	84.2%	81.1%	72.2%	63.7%	22.6%	56.5%	73.0%
	Wife	0.8%	1.2%	0.7%	1.2%	15.5%	1.2%	0.1%
	Couple	0.0%	0.9%	0.4%	3.4%	4.9%	4.2%	0.1%
	Other	0.4%	2.1%	7.4%	1.8%	0.1%	7.2%	6.4%
	Subtotal	85.4%	85.3%	80.8%	70.1%	43.2%	69.0%	79.5%
DISAGREE	Wife says she owns (individually or jointly); husband does not	8.3%	7.2%	7.4%	17.4%	41.2%	15.0%	4.8%
	Husband says wife owns (individually or jointly); wife does not	2.8%	3.2%	3.9%	5.6%	5.8%	5.6%	3.1%
	Both say wife owns (individually or jointly)	3.2%	3.5%	7.7%	4.9%	1.1%	8.9%	12.5%
	Neither says wife owns (individually or jointly)	0.4%	0.9%	0.3%	2.0%	8.7%	1.5%	0.1%
	Subtotal	14.6%	14.7%	19.3%	29.9%	56.8%	31.0%	20.5%
Sample size		253	570	4,785	1,196	2,554	3,531	1,549

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Sample for each decision is couples who agree that decision was made.

Where couples disagree on who owns, the most frequent category of disagreement is category 5: wife says she owns (individually or jointly) but husband does not include her as an owner. However, for a few assets, a higher proportion of couples both state that the wife owns but disagree on the husband's ownership (category 7). The remaining responses are scattered over the other categories of disagreement, with no clear concentration in one particular category.

Similar patterns are seen in the responses for decisions to purchase new assets (Table 4.4). However, for most assets, fewer spouses agree on who can decide to purchase new assets than on who owns each type of asset. The one exception is consumer durables. Among couples who agree, the highest concentration of responses is that husbands decide to purchase new assets without their wives (category 1). Disagreement continues to be concentrated in the category where women say that they are involved, but men disagree (category 5).

Table 4.4 Agreement and disagreement regarding who decides to purchase new assets

<i>Who contributes most to decisions regarding new purchase of ...</i>							
Variable	Agricultural land	Non-agricultural land	Large livestock	Small livestock	Poultry	Fish pond or fishing equipment	Non-mechanized farm equipment
AGREE	Husband	38.8%	33.5%	31.0%	22.9%	11.6%	48.8%
	Wife	0.2%	0.1%	2.0%	2.5%	12.0%	0.1%
	Couple	13.8%	17.1%	18.2%	20.0%	13.1%	10.3%
	Other	4.4%	2.8%	1.0%	1.0%	0.6%	0.2%
	<i>Subtotal</i>	<i>57.2%</i>	<i>53.5%</i>	<i>52.2%</i>	<i>46.3%</i>	<i>37.2%</i>	<i>60.4%</i>
DISAGREE	Wife says she contributes (individually or jointly); husband does not	28.8%	31.3%	32.3%	30.5%	30.5%	24.1%
	Husband says wife contributes (individually or jointly); wife does not	7.2%	8.9%	9.0%	11.5%	10.1%	10.7%
	Both say wife contributes (individually or jointly)	5.6%	3.1%	3.0%	3.8%	1.8%	2.7%
	Neither says wife contributes (individually or jointly)	1.2%	3.2%	3.5%	7.9%	20.4%	2.1%
	<i>Subtotal</i>	<i>42.8%</i>	<i>46.5%</i>	<i>47.8%</i>	<i>53.7%</i>	<i>62.8%</i>	<i>39.6%</i>
Sample size		2,983	1,453	2,338	1,041	3,368	843

Table 4.4 Continued

<i>Who contributes most to decisions regarding new purchase of ...</i>							
Variable	Mechanized farm equipment	Nonfarm business equipment	House/ other structures	Large consumer durables	Small consumer durables	Mobile phone	Means of transport
AGREE	Husband	53.0%	52.5%	41.5%	32.1%	24.4%	45.7%
	Wife	0.4%	0.2%	0.3%	0.1%	4.7%	7.9%
	Couple	9.5%	9.7%	14.2%	21.2%	17.3%	2.2%
	Other	0.8%	1.4%	2.0%	0.7%	0.1%	0.0%
	<i>Subtotal</i>	63.6%	63.7%	58.0%	54.1%	46.6%	55.8%
DISAGREE	Wife says she contributes (individually or jointly); husband does not	27.3%	25.3%	28.2%	30.3%	27.2%	26.7%
	Husband says wife contributes (individually or jointly); wife does not	4.4%	7.5%	8.5%	10.0%	11.8%	8.7%
	Both say wife contributes (individually or jointly)	2.0%	1.9%	3.6%	3.3%	1.5%	8.0%
	Neither says wife contributes (individually or jointly)	2.8%	1.6%	1.8%	2.4%	13.0%	0.9%
	<i>Subtotal</i>	36.4%	36.3%	42.0%	45.9%	53.5%	44.3%
Sample size		253	570	4,785	1,196	2,554	3,531

Source: Authors' calculations from BIHS (Ahmed 2013).

Notes: Sample for each asset is couples who agree that asset is owned by the household.

Overall, there is a significant level of disagreement across all three types of questions. Some of this disagreement is certainly due to measurement error, such as variations in understanding of subjective questions and response categories. However, our analysis has revealed a systematic pattern in responses: Women are much more likely to be reported as being involved in decision making or being an owner when women, rather than men, are responding. Women are usually asserting joint rather than sole decision making and asset ownership. While this finding on decision making differs from the findings of Ghuman, Lee, and Smith (2006) and Jejeebhoy (2002), who find that husbands report that their wives have more decision-making power than their wives report, it is similar to the results on decision making in Allendorf (2007a) and in Twyman, Useche, and Deere (2015). Moreover, the two studies analyzing agreement on asset ownership also find that women are more likely than men to report joint ownership of land and housing (Jacobs and Kes 2014; Twyman, Useche, and Deere 2015). This pattern of results indicates that women have a systematically different interpretation of their roles than men do, particularly when considering decision making over both activities and asset purchase. While disagreement over the identity of the asset owner is still common, ownership rights do appear to be better understood within a couple than participation in the decision-making process.

5. IS AGREEMENT CORRELATED WITH OUTCOMES?

Spouses do provide different responses, but does that matter for the outcomes that we care about? First, we investigate whether households in which couples agree have better outcomes for women than households in which they do not agree. The simple fact that spouses agree could indicate a more cooperative and efficient household, which in turn could lead to improved outcomes for women.

Given the large number of decisions and assets in our data, rather than consider each decision or asset separately, we create a set of aggregate measures. For household decision making, we create a measure of the total number of activities for which the couple agreed on the identity of the decision maker as a proportion of the total number of decisions that they both reported were made in the household. We create similar measures for asset ownership and the decision to purchase assets.

We then consider the correlation of each of these aggregate measures with a set of outcomes that are generally linked to higher levels of women's bargaining power, including (1) whether the wife worked more than 10.5 hours per day, (2) the wife's BMI, (3) whether the wife has ever used birth control, (4) the number of groups in which the wife is an active participant, and (5) whether the wife currently has a loan. These reflect outcomes that have been used in the literature on women's bargaining power. For example, the size of a woman's dowry in China was shown to increase the husband's share of time allocated to household chores and the wife's share of leisure time (Brown 2009). Various studies find that women's control over assets and overall WEAI scores are associated with improved female nutrition in Bangladesh and Nepal (Sraboni et al. 2014; Malapit et al. 2015). In our analysis, we use the wife's BMI as a proxy for her nutritional status. Schuler, Hashemi, and Riley (1997) find that measures of women's empowerment are associated with the use of contraception in Bangladesh (Schuler, Hashemi, and Riley 1997).⁹ The WEAI uses group participation as an indicator of leadership, one of the domains of empowerment (Alkire et al. 2013; Narayan 2002). Finally, several studies find positive impacts of programs that grant credit to women in Bangladesh on dimensions of women's empowerment (Hashemi, Schuler, and Riley 1996; Pitt, Khandker, and Cartwright 2003), while others report mixed impacts, depending on the type of program and who ultimately controls the loan (Goetz and Gupta 1996; Kabeer 2001).¹⁰

We conduct ordinary least squares (OLS) regressions for each of these outcome variables, clustering standard errors at the PSU level and controlling for a set of demographic and income variables, including height, age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondents' parents, electrical connectivity, the area of cultivable land held by the household, religion, and region. In addition, we control for the number of activities the couple agreed that the household engages in or the number of assets they agree that the household owns.¹¹

We present the results in Table 5.1. Each cell is a separate regression with each column representing a different outcome variable and each row a right-hand-side variable of interest (as discussed above). All control variables are constant across regressions. Contrary to the hypothesis that agreement may lead to improved outcomes for women, the majority of the regressions reveal a negative correlation between the proportion of activities and assets for which the couples agree and women's outcomes, although this correlation is not statistically significant in all cases. This negative relationship is not surprising when considering the findings presented in Tables 4.2, 4.3, and 4.4 that in the majority of instances where spouses agree, they agree that the husband is the sole decision maker or owner. This suggests that simple agreement between spouses is insufficient to promote better outcomes for women.

⁹ These measures of empowerment include women's economic security and contribution to family support, freedom of mobility, and relative freedom from domination by the family.

¹⁰ Credit may also be an ambiguous indicator of women's bargaining power because it is unclear whether those who did not borrow simply had adequate liquidity (Boucher, Guirkinger, and Trivelli 2009; Sraboni et al. 2014).

¹¹ See the note to Table 3.3 for a detailed description of construction of all outcome and control variables.

Table 5.1 Correlation of agreement (binary) with women's outcomes

	(1)	(2)	(3)	(4)	(5)
Variable	Wife worked more than 10.5 hours in a day	Wife's body mass index	Wife's use of birth control ever	Number of groups in which wife is active	Wife has loan
Proportion of activities participated in for which couples agree who decides	0.02 (0.02)	-0.02 (0.16)	0.01 (0.02)	-0.02 (0.02)	-0.01 (0.01)
Proportion of owned assets for which couples agree who owns	-0.04* (0.02)	-0.29 (0.19)	-0.04* (0.02)	-0.07** (0.03)	-0.02 (0.02)
Proportion of owned assets for which couples agree who decides to purchase new	-0.06*** (0.02)	0.14 (0.14)	0.03 (0.02)	-0.06*** (0.02)	-0.03*** (0.01)
Dependent variable mean	0.22	20.83	0.78	0.31	0.18

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Robust standard errors in parentheses are clustered at the primary-sampling-unit level. All regressions control for the height (in meters), age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondent's parents, electrical connectivity, the area of cultivable land held by the household (converted to acres), religion, and region. A detailed description of how each variable is constructed can be found in the note to Table 3.3. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

6. IS AGREEMENT ON WOMEN'S EMPOWERMENT CORRELATED WITH OUTCOMES?

The household dynamics that affect women's outcomes are clearly more complicated than simple agreement between husband and wife. Thus, we posit that it matters not only whether spouses give the same answer but also what that answer is. In particular, we might expect that a wife's outcomes would be better in a household where the husband and wife both say that she is involved in decision making and owns assets, relative to a couple that agrees that only the husband makes decisions and is an owner. However, what about a case in which the wife says she makes decisions or owns assets but the husband says she does not? In this section, we consider how the outcomes are correlated with the full range of types of agreement and disagreement between husbands and wives.

Our first step is to create a summary measure of spouses' responses across types of decisions or assets for the three categories similar to the measure developed for simple agreement in the previous section. We create eight variables—one for each of the eight response types—to indicate the number of times a couple answered with the corresponding response. For each of these eight response categories, the value is a continuous measure that is the number of times a household falls into that response category divided by the number of decisions the household makes or assets it owns. For all regressions “husband without wife” is the omitted category and all coefficients can be interpreted in reference to that category. Conducting the analysis in this way allows for a summary measure that is easy to interpret and uses all observations. Inclusion in the sample is not conditioned on making a specific decision or owning a certain asset.

Using these aggregated response variables as explanatory variables, we conduct OLS regressions for the same outcome variables examined in Section 5. Standard errors are clustered at the PSU level, and the same control variables as those in Table 5.1 are included. We again control for the number of activities for which the couple agreed that the household engages in or the number of assets they agreed that the household owns.

Decision Making over Household Activities

We present the results for couples' responses regarding who makes decisions about household activities in Table 6.1. The first column reports the percentage of activities falling into each agreement or disagreement category. Responses regarding activities are concentrated in three main categories: agreement on husband without wife (category 1), agreement on joint couple (category 3), and disagreement in which the wife indicates that she participates while the husband says she does not (category 5). Given that these categories represent almost 85 percent of responses and also cover the situations we are most interested in—namely, agreement and disagreement over the wife's involvement—we focus our discussion on these three categories.

The regression results are presented in columns 2 through 6 of Table 6.1. The *p*-values for the test of equality between categories 3 and 5 are included at the bottom of the table. While these regressions are descriptive and do not imply a causal relationship, the inclusion of a set of control variables alleviates some concern that results are being driven by unobservables correlated with the response categories.

Table 6.1 Correlation of activity decision categories with women's outcomes

		(1)	(2)	(3)	(4)	(5)	(6)
Variable		Mean percentage of activities in category	Wife worked more than 10.5 hours in a day	Wife's body mass index	Wife's use of birth control ever	Number of groups in which wife is active	Wife has loan
<i>Percentage of activities in ...</i>							
AGREE	1: Husband (omitted category)	20.8%					
	2: Wife	1.1%	0.14 (0.09)	-0.53 (0.60)	0.22** (0.09)	0.43*** (0.12)	0.27*** (0.06)
	3: Couple	29.5%	0.06** (0.03)	0.16 (0.22)	0.16*** (0.03)	0.16*** (0.03)	0.09*** (0.02)
	4: Other	0.2%	-0.22*** (0.08)	-1.06 (1.41)	0.05 (0.18)	-0.02 (0.13)	0.07 (0.08)
DISAGREE	5: Wife says wife (individually or jointly); husband does not	34.4%	0.02 (0.02)	0.13 (0.22)	0.08*** (0.03)	0.10*** (0.03)	0.07*** (0.01)
	6: Husband says wife (individually or jointly); wife does not	5.4%	0.02 (0.04)	-0.52 (0.32)	-0.07 (0.04)	0.11** (0.05)	0.06** (0.02)
	7: Both say wife (individually or jointly)	1.0%	-0.07 (0.06)	-0.02 (0.79)	-0.11 (0.10)	0.11 (0.09)	0.02 (0.04)
	8: Neither says wife (individually or jointly)	7.7%	0.06 (0.04)	0.33 (0.37)	0.28*** (0.04)	0.24*** (0.05)	0.09*** (0.02)
Number of decisions made			0.02*** (0.01)	0.01 (0.04)	0.06*** (0.00)	0.01** (0.01)	0.00 (0.00)
Observations			4,907	4,893	4,912	4,912	4,912
R^2			0.07	0.08	0.19	0.07	0.07
P -value for equality of categories 3 and 5			0.069*	0.868	0.001***	0.043**	0.185
Dependent variable mean			0.22	20.83	0.78	0.31	0.18

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Robust standard errors in parentheses are clustered at the primary-sampling-unit level. All regressions control for the height (in meters), age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondent's parents, electrical connectivity, the area of cultivable land held by the household (converted to acres), religion, and region. A detailed description of how each variable is constructed can be found in the note to Table 3.3. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Both category 3 (agreement on joint decision making) and category 5 (wife acknowledges her role but husband does not) have significant, positive associations with at least three of the five outcomes relative to agreement on the husband without his wife. For women's use of birth control (column 4), number of groups (column 5), and woman respondent has a loan (column 6), both categories 3 and 5 have a significant and positive relationship with the outcome variable relative to agreement on husband alone. The effect sizes are large relative to the dependent variable means: 20, 52, and 52 percent for category 3 for columns 4, 5, and 6, respectively, and 10, 32, and 39 percent for category 5 again across columns. Only category 3 is significantly different from category 1 for the outcome that women worked more than 10.5 hours in a day (column 2), and neither category is significant for women's BMI (column 3). The estimated coefficients for women's BMI are also quite small, suggesting that there is truly no relationship for this variable.

It is also instructive to compare the coefficients for categories 3 and 5 to each other. For two of the outcomes (BMI and loan status of the woman respondent) the effect sizes for categories 3 and 5 are not statistically different from one another. In the cases of number of community groups in which women respondents are active, women working more than 10.5 hours per day, and women's use of birth control, the coefficient for category 3 is statistically significantly larger than the coefficient for category 5. These differences in magnitude are also economically significant. For birth control use the effect is twice as large for category 3 as for category 5, and for group membership it is 1.6 times larger. There are also significant effects relative to the omitted category for categories 2 (agreement on wife without husband), 6 (husband acknowledges wife's role, but wife does not), and 8 (neither acknowledges wife's role, but disagree on who decides), suggesting that almost any situation relative to agreement on husband alone is associated with improved women's outcomes. However, it should be noted that the sample in many of these categories is quite small, limiting confidence in the results.¹

The regressions show a strong positive correlation between a woman's recognition of her role in decision making and women's outcomes that have been previously linked to women's bargaining power. The results suggest that this relationship exists even if the husband does not agree that the wife is a participant. However, similar to the findings of Allendorf (2007a), the balance of the evidence is that this association is strongest when the husband and wife agree.

Asset Ownership and Decisions to Purchase New Assets

Next we analyze the question of whether spousal concordance over who owns assets and who makes decisions about purchasing new assets is related to the same set of women's outcomes analyzed in the previous section. Given that an individual's current control over assets is arguably a less direct indicator of bargaining power than one's role in decision making, we first show that women's asset rights are correlated with women's decision making about household activities (Table 6.2). Given that women's acknowledgment of their role in decision making is associated with beneficial outcomes for women regardless of whether their husbands recognize their role, we consider only women's responses to the decision-making questions in constructing this outcome.

Column 1 of Table 6.2 examines the relationship of agreement and disagreement over the identity of asset owners with women's decision making, while column 2 looks at the same relationship but with the identity of those who decide to purchase new assets. The dependent variable is the number of decisions in which the woman respondent participates divided by the number of decisions made within each household. The results are consistent across both ownership and purchase decisions, showing strong positive correlations with the main categories of interest (categories 3 and 5) and the proportion of activity decisions made by women relative to agreement on husband alone. As in Table 6.1, the positive correlation is consistently stronger and statistically different for agreement on joint decision making (category 3) than cases where the wife recognizes her role and the husband does not (category 5). These

¹ Additionally, it is difficult to interpret category 8. In this case, either the husband or wife would have had to indicate "other."

results are suggestive of a link between these two asset measures and bargaining power, validating the next step of the analysis, the examination of the correlation of agreement and disagreement over assets and women's outcomes.

Table 6.2 Correlation of asset categories with women's decision making

Variable	(1) <i>Ownership</i>	(2) <i>Decision to purchase new</i>
	Proportion of decisions made in which wife participates	Proportion of decisions made in which wife participates
<i>Percentage of assets in ...</i>		
AGREE	2: Wife	0.28*** (0.04)
	3: Couple	0.22*** (0.05)
	4: Other	0.02 (0.04)
	5: Wife says she owns (individually or jointly); husband does not	0.12*** (0.03)
DISAGREE	6: Husband says wife owns (individually or jointly); wife does not	0.14*** (0.03)
	7: Both say wife owns (individually or jointly)	-0.02 (0.04)
	8: Neither says wife owns (individually or jointly)	0.23*** (0.06)
	Number of asset categories owned	0.01*** (0.00)
Observations	4,913	4,914
R^2	0.08	0.18
P -value for equality of categories 3 and 5	0.082*	0.089*
Dependent variable mean		0.72

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Robust standard errors in parentheses are clustered at the primary-sampling-unit level. All regressions control for the height (in meters), age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondent's parents, electrical connectivity, the area of cultivable land held by the household (converted to acres), religion, and region. A detailed description of how each variable is constructed can be found in the note to Table 3.3. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Thus, we next examine the correlation of agreement and disagreement over the identity of the asset owner with women's outcomes. We show the results in Table 6.3, which is constructed in a parallel manner to Table 6.1. The distribution of assets falling into each category differs from that of the decisions examined in Table 6.1. There is a much higher concentration in category 1 (agreement on husband without wife) and lower concentration in categories 3 (agreement on joint ownership) and 5 (wife says she owns, but husband disagrees). This is consistent with the descriptive analysis presented in Tables 4.2 and 4.3 and affirms the idea that ownership rights are more clearly understood within the household than decision-making processes.²

² An alternative interpretation of these comparisons is that women have made more progress when it comes to participating in decisions than they have with regard to actual ownership rights of assets.

Table 6.3 Correlation of ownership categories with women outcomes

		(1)	(2)	(3)	(4)	(5)	(6)
Variable		Mean percentage of activities in category	Wife worked more than 10.5 hours in a day	Wife's body mass index	Wife's use of birth control ever	Number of groups in which wife is active	Wife has loan
<i>Percentage of assets in ...</i>							
AGREE	1: Husband (omitted category)	52.3%					
	2: Wife	7.7%	0.05 (0.05)	0.35 (0.42)	0.09* (0.05)	0.17*** (0.06)	0.09*** (0.03)
	3: Couple	2.3%	0.20** (0.09)	-0.17 (0.55)	-0.07 (0.07)	0.24** (0.10)	0.11** (0.04)
	4: Other	6.6%	0.03 (0.05)	-1.09*** (0.40)	-0.12** (0.05)	0.08 (0.05)	0.08*** (0.03)
DISAGREE	5: Wife says she owns (individually or jointly); husband does not	16.6%	0.06* (0.03)	0.59** (0.26)	0.06* (0.03)	0.14*** (0.04)	0.02 (0.02)
	6: Husband says wife owns (individually or jointly); wife does not	5.4%	-0.02 (0.04)	-0.09 (0.37)	0.08* (0.05)	0.03 (0.06)	0.05* (0.03)
	7: Both say wife owns (individually or jointly)	5.8%	0.06 (0.05)	-0.73** (0.36)	-0.05 (0.05)	0.08 (0.06)	0.07** (0.03)
	8: Neither says wife owns (individually or jointly)	3.3%	0.15** (0.07)	0.95 (0.58)	0.10 (0.06)	0.08 (0.08)	0.09** (0.04)
Number of asset categories owned			0.01*** (0.00)	0.04 (0.03)	0.01*** (0.00)	0.02*** (0.00)	0.00 (0.00)
Observations			4,923	4,909	4,928	4,927	4,928
R^2			0.07	0.08	0.15	0.07	0.07
P -value for equality of categories 2 and 5			0.786	0.565	0.489	0.662	0.023**
P -value for equality of categories 3 and 5			0.100*	0.179	0.082*	0.293	0.053*
Dependent variable mean			0.22	20.83	0.78	0.31	0.18

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Robust standard errors in parentheses are clustered at the primary-sampling-unit level. All regressions control for the height (in meters), age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondent's parents, electrical connectivity, the area of cultivable land held by the household (converted to acres), religion, and region. A detailed description of how each variable is constructed can be found in the note to Table 3.3. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

The results generally show a positive correlation between women's outcomes and the two main categories of interest (categories 3 and 5). Most results are statistically significantly different from zero relative to the base category of husband alone for these categories, except for women's BMI and use of birth control for category 3, and women's loans for category 5. However, given the small numbers of observations falling into category 3 (2.3 percent) in this table, the category 3 results should not be overinterpreted. The interpretation should instead focus on category 5 where the evidence is persuasive that a woman recognizing her rights even though her husband does not is associated with improved female outcomes.

Given the larger concentration of responses in category 2 (agreement on wife alone) for asset ownership (roughly 8 percent), it is also instructive to discuss those results. There is a strong and significant positive correlation between agreement on the wife's ownership without her husband for three of the five outcomes—women's use of birth control, the number of community groups in which they are active, and whether they have a loan—relative to the omitted category of husband without wife. These results are not directly comparable to the results in Table 6.1 because of the very different distribution of responses across categories. However, a similar overall conclusion can be drawn—recognition of women's participation or rights is associated with improved outcomes for women, even if the woman is the only one to recognize her role.

Since the measure of asset ownership may not capture women's access to or use of assets, it is instructive to analyze other asset-related measures, such as the identity of those who make purchase decisions. This measure is highly correlated with other asset-related measures such as who makes sale decisions. Table 6.4 shows the results. The distribution of responses across agreement and disagreement categories falls somewhere between the distributions for decision making about activities and asset ownership. Agreement on husband alone is the largest category, followed by cases where the wife acknowledges her role but the husband does not, and then, to a lesser extent, agreement on joint couple decision making. Many couples agree that while husbands may have sole ownership over assets, wives are involved in household decision making—either on household activities (Table 6.1) or on the purchase of new assets (Table 6.4).

The results in Table 6.4 are supportive of the pattern of results seen in Tables 6.1 and 6.3, although the estimates are less precise and exhibit fewer statistically significant relationships. The correlations for agreement on joint asset purchase decisions (category 3) and cases where the wife recognizes her role but the husband does not (category 5) are generally positive relative to agreement on husband without wife, with a few exceptions. However, only the coefficients for group membership and loan status are both positive and statistically significantly different from zero for these categories. Interestingly, where the estimated coefficients for category 3 were much larger than category 5 for decision making about activities (Table 6.1), in this table we do not see large differences in magnitude for the outcomes with the most convincing statistical relationships. But the lack of statistical precision in these analyses prevents us from drawing any very strong conclusions for purchase decisions.

Table 6.4 Correlation of purchase decision categories with women outcomes

		(1)	(2)	(3)	(4)	(5)	(6)
Variable		Mean percentage of activities in category	Wife worked more than 10.5 hours in a day	Wife's body mass index	Wife's use of birth control ever	Number of groups in which wife is active	Wife has loan
<i>Percentage of assets in ...</i>							
AGREE	1: Husband (omitted category)	36.0%					
	2: Wife	2.2%	0.24 (0.38)	1.11 (0.73)	0.05 (0.08)	0.18 (0.11)	0.02 (0.05)
	3: Couple	12.9%	-0.06 (0.15)	0.03 (0.20)	0.00 (0.02)	0.06* (0.04)	0.03 (0.02)
	4: Other	1.9%	-0.57 (0.47)	-1.23** (0.59)	0.01 (0.08)	-0.13 (0.09)	0.02 (0.05)
DISAGREE	5: Wife says she contributes (individually or jointly); husband does not	28.8%	0.12 (0.12)	-0.09 (0.18)	-0.04** (0.02)	0.08*** (0.03)	0.03** (0.01)
	6: Husband says wife contributes (individually or jointly); wife does not	9.0%	0.14 (0.18)	-0.38* (0.22)	0.00 (0.03)	0.07 (0.05)	0.05** (0.02)
	7: Both say wife contributes (individually or jointly)	3.9%	-0.28 (0.28)	-0.51 (0.38)	-0.14** (0.06)	0.11* (0.06)	0.02 (0.03)
	8: Neither says wife contributes (individually or jointly)	5.2%	0.51 (0.31)	0.04 (0.41)	0.08* (0.05)	0.04 (0.06)	0.07** (0.03)
Number of asset categories owned			0.01*** (0.00)	0.04 (0.03)	0.00 (0.00)	0.02*** (0.00)	0.00 (0.00)
Observations			4,923	4,909	4,928	4,927	4,928
R^2			0.07	0.08	0.15	0.07	0.06
P -value for equality of categories 3 and 5			0.06*	0.575	0.10*	0.522	0.862
Dependent variable mean			0.22	20.83	0.78	0.31	0.18

Source: Authors' calculations from BIHS (Ahmed 2013).

Note: Robust standard errors in parentheses are clustered at the primary-sampling-unit level. All regressions control for the height (in meters), age, and education of women respondents, age and education differences of the respondent couple, household size and composition based on age and sex, presence of male respondent's parents, electrical connectivity, the area of cultivable land held by the household (converted to acres), religion, and region. A detailed description of how each variable is constructed can be found in the note to Table 3.3. *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$.

Limitations of Methodology

It is important to note several limitations in our analysis and interpretation of the results. First, by creating summary measures of responses, we implicitly assume that decisions over all activities are equally important, ownership of all asset types is equally important, and decisions to purchase all new assets are equally important. It is unlikely, however, that individuals value ownership of small consumer durables, for example, as much as they value ownership of larger assets such as land or housing. But without information on men's and women's preferences for making various decisions and owning different assets, we cannot rank the importance of different decisions or assets. Rather than focusing our analysis on a few decisions or assets, we include all decisions and assets in our summary variables in order to create the most comprehensive measures.

Second, it is plausible that disagreement between spouses is caused by systematic differences in their interpretation of the questions. For example, men and women may have disparate understandings of what it means to make a decision or own an asset. In addition, it is possible that husbands and wives categorize decisions and assets differently under the options provided in the survey and refer to different items in the questions that follow. Our findings, however, suggest that even if men and women interpret survey questions differently, their responses have important implications for women's well-being.

7. DISCUSSION AND CONCLUSION

The paper addresses the question of whether husbands and wives agree on who makes decisions and who owns assets, and whether the extent of the agreement has implications for women's well-being in Bangladeshi households. Prior to this study, work in this area was limited to examining the relationship between agreement and a small number of health outcomes. We take a more comprehensive approach, examining decision making and asset ownership across a wide range of activities and assets, developing a meaningful typology of response categories, and examining correlations with a diverse set of outcomes that have been linked to women's bargaining power.

Disagreement is substantial, systematic, and seemingly meaningful: the most commonly reported category of disagreement occurs when women claim that they are decision makers and owners but their husbands say that they are not. We find that agreement that the wife participates in decisions and owns assets is correlated with better outcomes for women. The main category of disagreement is also associated with positive outcomes for women, suggesting that a woman's recognition of her role has significant importance, even when her husband does not agree. However, when considering decision making about activities the correlation with outcomes is considerably stronger for when spouses agree about wives' involvement compared to when only wives recognize their own participation. This suggests that although women recognizing their role is an important component of bargaining power, women benefit even more when their husband also acknowledges their role. Whether this is because the woman's role is so much stronger or because male recognition in and of itself is positive is a critical question for further research. If a husband's acknowledgment of his wife's involvement in decision making can improve women's outcomes, development programs should promote greater communication between couples regarding wives' contributions.

These results also speak to the importance of whose perspectives we obtain when collecting survey data. Women's perspectives on these indicators of bargaining power are important. Men's perspectives are insufficient for evaluating women's bargaining power, but women's responses may, in some cases, be useful even if comparable data cannot be collected from men. Additionally, the relative strength of the association of variables concerning decision making over activities with women's outcomes suggests that, at least in this context, these variables may be better indicators of women's status than the asset-based measures. Given the variation in distribution of responses between the activity measures and the asset measures, this difference may be due to the fact that there is currently more scope for women's participation in decision making over household activities than owning assets.

Although such survey-based measures of decision making and control over assets are widely used as a proxy for bargaining power within the household, they have been criticized for their subjective nature. Given the strong positive association between a woman's recognition of both her role in decision making and her control over assets and indicators of women's bargaining power, the results support their usefulness in understanding intrahousehold decision-making dynamics. Yet they also raise interesting questions about the household decision-making process itself. Responses to survey questions do not make it clear why spouses perceive their roles so differently and how those varying perceptions translate to relative bargaining power (or vice versa). These questions are related to a growing literature that shows that information asymmetries affect intrahousehold resource allocation and should be addressed both empirically and theoretically in further research.

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