# He Said, She Said, They Said:
# Couples' Reports of Women's Autonomy and Health Care Use in Nepal

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*******DRAFT*******

**Abstract**
I use data from matched couples in the 2001 Nepal Demographic and Health Survey to explore how incorporating both spouses' perceptions of household decisionmaking may change our understanding of the determinants of women's autonomy and its impact on health care. I find that couple agreement on who makes household decisions is far from perfect, but the determinants of autonomy are largely similar according to both spouses' reports. However, the effects of two important sources of autonomy, women's education and employment, do differ significantly between spouses. Finally, the association between women's autonomy and health care use may be underestimated using only women's reports. When spouses agree that the wife is autonomous, the association between autonomy and health care use is substantially larger.

Women's autonomy – the opportunity to make choices that affect their life and environment – is an important factor in demographic outcomes. Several studies have found that women's autonomy is associated with lower fertility and greater contraceptive use (eg. Morgan and Niraula 1995; Gage 1995; Govindasamy and Malhotra 1996). Women's autonomy is also associated with lower child mortality and better maternal and child health (eg. Bloom et al. 2001; Kishor 2000).[1] These results indicate that women with greater mobility, decision-making power, and control over resources are better able to allocate resources to children, use health and family planning services, and engage in healthier practices in general. However, the pathways that lead from women's autonomy to these outcomes are not fully understood.

The role that men play in these pathways is one area that requires further attention. Usually, research on women's autonomy uses information gathered from women only. Such data can go a long way towards exploring how men constrain, support, and help make choices as perceived by women. However, such data cannot directly reflect on men's perceptions, which are likely to play a critical role. Moreover, incorporating men's perceptions provides a check on the validity of autonomy measures based only on women's reports.

Research using data from both wives and husbands in matched couples is a burgeoning area in reproductive health (e.g. Becker 1996; Bankole and Singh 1998; Mason and Smith 2000). However, these studies concentrate on differential reports of fertility preferences and practices. They have not explored couples' views of wives' autonomy, nor have they looked at health outcomes beyond contraception and fertility. Jejeebhoy's (2002) study on spouses' perspectives

[1] I use the term autonomy to denote women's ability to make choices about their life and environment at a single point in time. Empowerment is a similar term, which is commonly used in these studies (e.g. Kishor 2000). What sets empowerment apart from autonomy is the element of time. Empowerment denotes a process of change over time, whereas autonomy denotes the level of empowerment at a particular point in time (Malhotra et al. 2002; Kabeer 1999; Jejeebhoy 2000). I will occasionally use the term empowerment as well, when I am specifically referring to a process of change.

on women's autonomy in rural India is an important exception, although she too concentrates on contraception and fertility. Reinforcing the need to examine men's perceptions, Jejeebhoy found that spouses' reports of autonomy agreed only loosely. Further, husbands' perceptions of wives' autonomy did greatly influence reproductive behavior, including discussion of family planning, contraceptive use, and recent births.

In this paper, I further explore couple's perceptions of women's autonomy and their association with health outcomes in Nepal by asking three related questions. First, how well do spouses' reports of the wife's autonomy agree? Second, are the determinants of women's autonomy the same according to wives' and husbands' reports? Third and finally, what perceptions about wives' autonomy are associated with the best maternal and child health care outcomes? This analysis builds on Jejeebhoy's work by looking at couple agreement on women's autonomy in a different, but neighboring context, in Nepal. It also broadens the discussion on couples and men's perceptions by looking at maternal and child health care, rather than contraception and fertility.

**Data**

Data for this analysis come from the 2001 Nepal Demographic and Health Survey (NDHS), a nationally representative, cross sectional, household survey (Ministry of Health [Nepal] et al. 2002). 8,602 households were surveyed and within those households 8,726 ever married women aged 15-49 were interviewed. From every third household, a total of 2,261 ever married men aged 15-59 were interviewed. The overall response rate was 97.8 percent. The data for this analysis are limited to the 1,853 currently married couples who were matched from the individual women's and men's interviews.

Women's autonomy is measured with questions on household decision-making. Both women and men were asked who in their family usually has the final say on five decisions: 1) wife's (her own) health care; 2) making large household purchases; 3) making household purchases for daily needs; 4) visits to family, friends, and relatives; and 5) what food should be cooked each day. Responses to each of these decisions were put into the following categories: 1) respondent alone; 2) spouse; 3) respondent and spouse jointly; 4) someone else; or 5) respondent and someone else jointly.[2]

When comparing spouse responses on wives' participation, these response categories are not entirely comparable. According to the husband's report, the wife can have the final say either alone or jointly with him. According to the wife's report, she can have the final say alone, jointly with her husband, *or* jointly with someone else. However, apart from the cooking decision, this mismatch in the response categories has only a very small impact on the level of agreement within couples. One hundred thirty women reported having the final say jointly with someone else on cooking. The next largest number of women reporting having the final say jointly with someone else is only 31, less than 2% of all couples.

The range of these responses for each decision is explored below in the descriptive analysis. Additionally, aggregate measures of autonomy which focus more directly on the wife's participation were also created. These aggregate measures are based only on the four non-cooking decisions on health care, large purchases, daily purchases, and visits to family and friends. The first is a dummy variable denoting whether the respondent reported that the wife *alone or jointly* had the final say on at least one of these four decisions. The second is another

[2] Respondents could also say that the decision was not made or not applicable. However, at most, only 8 women said the health care decision was not applicable and 16 men said the cooking decision was not applicable. These responses were classified along with "someone else" making the decision. Since they constitute less than 1% of the sample they should not present any significant bias.

dummy variable which further limits autonomy to the wife *alone* having the final say in at least one of the four decisions. Using both of these variables allows me to explore potential differences between women having the final say alone versus jointly.

The cooking decision is not included in these aggregate measures because the significance of choosing daily food is substantially different from the other decisions. Cooking is traditionally women's responsibility, so it does not vary much among women and, thus, is not a good indicator of autonomy in this context (Acharya and Bennett 1981). This difference between cooking and the other decisions is strikingly demonstrated in figure 2. Unlike the other decisions, a majority of respondents said that the wife alone chose what food to cook each day.

**Results and Discussion**

*I. Couple Agreement*

[Table 1 About Here]

There is a substantial amount of disagreement between spouses on who makes household decisions. The proportion of couples agreeing on who has the final say ranges from just under half to 70% (table 1). At the lower end, about half of couples agree on who has the final say on household purchases and visits to family and friends. At the higher end, 61% of couples agree on who has the final say on the wife's health care and 71% on cooking. The exact level of agreement is, of course, sensitive to the number of categories used. As seen in figure 1, when the categories in table 1 are further collapsed to denote simply whether the wife has the final say alone or jointly, the percentage of couples agreeing increases by about 10%, ranging from 60% to 80%. These levels of agreement are all significantly greater than that predicted by chance alone though. The kappa statistics are all significant at the 0.01 level.

It should be noted that the marginal proportions are not a good indicator of the level of agreement. For most of the decisions, the marginals suggest a much higher level of agreement than the crosstabulations reveal (table 1). For example, the marginal totals for husbands and wives responses for the daily purchases decision look fairly similar, with about 40% of both husbands and wives saying the husband has the final say and around 20% of the rest falling into each of the other categories. However, the crosstabulation reveals a great deal of disagreement. While just over 40% of both wives and husbands say the husband makes the decision, in only about half of those cases does their spouse give the same response.

The marginals do reveal a slight tendency for wives to report greater decision-making power than husbands. Wives are more likely to report that they have the final say *alone* on a decision. For example, 7% of wives say they have the final say alone on their health care, while only 2% of husbands say wives do (table 1). However, if no distinction is made between whether the wife has the final say alone or jointly than there is not a substantial difference between spouses. Apart from the health care decision, wives are not more likely to report having the final say *alone or jointly*. For example, about one-third of wives and one-third of husbands say that the wife has the final say alone or jointly on large household purchases (figures 1 and 2). Similarly, about half of both husbands and wives report that the wife has the final say alone or jointly on at least one of the four non-cooking decisions.

Couple agreement appears to be the strongest in decisions where gender norms are clearest. As noted above, cooking falls squarely within women's traditional activities and also has the highest levels of agreement. This high level of agreement is driven by the 62% of couples who agree that the wife alone has the final say. Similarly, the comparatively high level of agreement in the health care decision is driven by the large proportion of couples agreeing that

the husband usually has the final say. This pattern is most likely due at least partially to the nature of the questions. Asking who usually has the final say is relatively vague, so respondents are likely to fall back on cultural norms rather than actual practices (Acharya and Bennett 1981). Therefore, higher levels of agreement would result in areas where social norms are clearer or stronger.

These levels of agreement are consistent with Jejeebhoy's (2002) findings from India where couples agreed only loosely on women's autonomy. About half to three-quarters of the Indian couples agreed on whether wives participated in household decisions and were able to go unescorted to certain places. Most of the measures are not comparable to those presented here, but a few are close. For example, 78% of the Indian couples agreed on whether the wife had a say in household spending, while 66% of the Nepali couples agree on whether the wife has the final say alone or jointly on daily household purchases. Further, 55% of the Indian couples agreed on whether the wife was involved in decisions to make major household purchases, while 67% of the Nepali couples agree on whether the wife has the final say alone or jointly on large household purchases.

However, there is a substantial difference between Jejeebhoy's findings and those presented here. She found that husbands were more likely than wives to report that the wife was autonomous in surveys, but not during focus group discussions. Thus, she inferred that men tend to provide more acceptable answers in surveys. This pattern does not hold up here. It is wives who tend to report that they have greater decision-making power, not husbands. Moreover, as noted above, substantial proportions of both wives and husbands report that the wife has the final say in a decision when their spouse does not.

*II. Determinants of Autonomy*

The determinants of autonomy are explored using a bivariate probit model (Ashford and Snowden and 1970). Couples' reports of the wife's autonomy present two measures of the same underlying variable. Unobserved characteristics, such as spouses' personalities, should influence both spouses' reports of the wife's autonomy. Therefore, the errors in a multivariate analysis will be correlated between spouses, violating an assumption of the standard probit model. The bivariate probit allows for correlation in the errors between spouses by estimating spouses' reports of the wife's autonomy simultaneously. Further, as a probit model, the bivariate probit appropriately models autonomy as an underlying continuous variable. The measures of autonomy used here are dichotomous, but in reality autonomy should fall along a continuous spectrum. To control for the clustering of respondents in the survey the models presented below also provide robust standard errors that adjust for clustering by primary sampling unit.

The bivariate probit model can be expressed in the following way. Let $Y_{iw}$* represent wives' unobserved perception of their autonomy. $Y_{iw}$ is wives' report of whether they have the final say alone in a non-cooking household decision, which occurs when their perception of their autonomy is greater than zero. This relationship can be expressed as the following for couple i, where $X_i$ represents a vector of couple characteristics:

(1) $Y_{iw}^* = X_i\beta_w + \varepsilon_{iw}$

$Y_{iw} = 1$ if $Y_{iw}^* > 0$, 0 otherwise

Similarly, let $Y_{ih}$* represent husbands' unobserved perception of their wives' autonomy. $Y_{ih}$ is husband's report of whether their wife has the final say alone in a non-cooking household decision, which occurs when their perception of their wife's autonomy is greater than zero.

(2) $Y_{ih}^* = X_i\beta_h + \varepsilon_{ih}$

$Y_{ih} = 1$ if $Y_{ih}^* > 0$, 0 otherwise

The random error terms, $\varepsilon_{iw}$ and $\varepsilon_{ih}$, are dependent and normally distributed such that $E(\varepsilon_{iw}) = E(\varepsilon_{ih}) = 0$, $var(\varepsilon_{iw}) = var(\varepsilon_{ih}) = 1$, and $cov(\varepsilon_{iw}, \varepsilon_{ih}) = \rho$. Equations 1 and 2 are simultaneously estimated using maximum likelihood.

[Table 4 About Here]

The results of the bivariate probit appear in table 4. Differences in coefficients between spouses responses were tested with Wald-type tests. Overall, the determinants of autonomy are similar across husbands' and wives' reports. In particular, the coefficients for household wealth, household size, wife's age, and husband's alcohol consumption are extremely similar for both husbands and wives reports. For example, the coefficient for wife's age is 0.01 for wives' response and 0.02 for husbands' response. Similarly, the coefficient for household wealth is 0.08 for wives and 0.13 for husbands. Moreover, some potential determinants of women's autonomy were dropped from the models because they had no significant effects according to either spouse's report. Husband's education, wife's early age at marriage, and couple level variables which compared spouses' ages and education levels had no effect on women's autonomy according to either spouse's report (results not shown).

The results also show some significant differences in the determinants of women's autonomy between wives' and husbands' reports. Some of these differences are minor though. They suggest that some variables may have a stronger effect on husbands than wives or vice versa, but they do not change substantive conclusions. For example, being the household head has a strong, positive effect on women's autonomy according to both spouses, but the effect is more than twice as large for husbands. Husband's occupation has a similar result. When the

husband is a self-employed farmer, both spouses are less likely to report that the wife is autonomous. However, husband's occupation has a significantly larger effect on the husband's response.

However, there are some differences in the results which would suggest substantially different conclusions about the sources of autonomy. In some cases, the coefficients do not differ significantly between men and women's responses. However, if only one set of responses was referred to, as is usually done with women's responses, the results would lead to different conclusions.[3] The most striking example of this result is women working for cash. According to wives' reports, women are much more likely to have the final say alone on a decision if they work for cash. Further, according to wive's responses, working for cash has the largest effect on autonomy. According to husbands' reports though, wives' cash remuneration has no effect on wives' participation in decision-making. Thus, wives' reports suggest that cash remuneration is the most important determinant of autonomy, while husbands' reports suggest that it is not important at all. Women's land ownership and shows a similar pattern. Wife's land ownership shows significantly positive associations with wives' reports of their autonomy, but not with husband's reports of wives' autonomy. Although, unlike cash remuneration, the coefficients for wife's land ownership do not differ significantly between men and women's responses.

While women's economic resources lose prominence when husband's responses are examined, women's education gains prominence. If a wife has more than primary schooling her husband is significantly more likely to report that she has the final say alone on a decision. The coefficients for education are positive for wives' response, but they are much smaller and not

[3]When only one set of responses are used a univariate, rather than bivariate, probit would be the appropriate model. Univariate probits that modeled wive's and husband's responses separately with identical specifications had extremely similar results to the bivariate probit results presented here. The coefficients from the univariate probits were either identical to those in the bivariate probit or differed by a few hundredths.

significant. Thus, wife's education has a significantly positive impact on women's autonomy according to men's reports, but not to women's.

Urban residence is the only socio-demographic control variable which shows significantly different results. Women are more likely to report having the final say alone if they live in an urban area. According to men's response though, urban residence does not have a significant effect on women's autonomy. Further, the coefficient is in the negative direction, suggesting that, if anything, women residing in urban areas are less likely to be autonomous.

I am not aware of any other studies that have compared the determinants of women's autonomy according to wives' and husbands' reports. So, I cannot reflect on how these results compare to other studies. By itself, this analysis provides some tentative implications about the determinants of women's autonomy. On one hand, these results are comforting. Despite the substantial disagreement between spouses on who makes discussion discussed above, the determinants of women's autonomy are broadly similar across spouses. Most coefficients do not differ significantly and, in particular, most socio-demographic controls have extremely similar estimates. Therefore, according to these results, exploring the determinants of women's autonomy using only women's responses, as is the norm, is not cause for alarm.

However, the differences in determinants between spouses are sufficient to give pause. Two sources of autonomy which indicate substantial differences in conclusions about sources of women's autonomy are wife's education and paid employment. Both of these have received a great deal of attention in previous research on autonomy. As more direct measures of women's autonomy have been adopted education's star has fallen (Malhotra et al. 2002). It has moved from being one of the most commonly used proxy of autonomy, to being criticized as an poor proxy with only a loose association with more direct indicators of autonomy, such as the

decisionmaking measures used here. On the other hand, women's access to income through micro-credit and employment has gained prominence as a critical source of empowerment and bargaining power (e.g. Kabeer 2001; Quisumbing and de la Briere 2000). These conclusions from previous literature are consistent with the determinants of autonomy presented here for women's response. However, they conclusions are not consistent with the determinants of autonomy according to men. Women's education has a much stronger association with autonomy as reported by their husbands than paid employment.

Further research is needed to determine whether this result is a peculiarity of these data or a more consistent pattern. However, assuming it is does have relevance, it raises important questions about women's access to cash as a source of empowerment. On one hand, if women's paid employment is really not very important for men's perceptions of women's autonomy, the growing preoccupation with women's economic resources as a source of empowerment may be somewhat misplaced. On the other hand, men may compensate for women moving into the traditionally masculine breadwinner role by downplaying or refusing to acknowledge their wife's greater participation in household decision-making. In the latter case, the different results between spouses may reflect how men respond to women's challenging of gender norms. These results may also reflect women's covert decision-making. Women's independent access to income should allow some women to make decisions that their husbands are not aware of (e.,g. Kabeer 1997). Women may have these decisions in mind when they answer survey questions on decision-making.

*III. Autonomy and Health Care Use*

Health care use is measured with four maternal and child health care outcomes reported by mothers in the individual women's interviews:

1. Whether the mother had at least one antenatal care visit with a health professional
2. Whether the mother received one tetanus toxoid injection to prevent neonatal tetanus
3. Whether the mother was attended by a health care professional at delivery
4. Whether the child is fully vaccinated

These maternal health care variables are available for all 1,043 most recent births to the couples that occurred within the five years preceding the survey. Since children receive vaccinations throughout their first year of life, the vaccination outcome is further limited to the 769 children who were at least one year old at the time of survey.

All four dichotomous outcomes are modeled using logistic regression and the associations between women's autonomy and health care use is explored using identical specifications for all four health outcomes. All models control for other proximate determinants of health care, including religion, caste, urban residence, household wealth, household size, mother's age, both parents' education, and whether distance to a health facility is a big problem. To explore which perceptions of women's autonomy are associated with the best health care, mother's autonomy is modeled in four different ways 1) as wife's response only; 2) as husband's response only; 3) with both spouses' responses; and 4) with spouses' responses interacted. The odds ratios for the associations between mother's autonomy and health care appear in table 5. The top half of the table defines autonomy as women *alone* having the final say on at least one of the four non-cooking decisions. The bottom half further includes joint decision-making,

referring to whether the mother *alone or jointly* has the final say on at least one of the four non-cooking decisions.

[Table 5 About Here]

One of the most striking results is that there is indeed a difference between women having the final say alone versus jointly. When women's autonomy is defined as having the final say *alone* on a decision, it has a significant and positive association with health care (top half of table 5). However, when joint decisions are included and autonomy is defined as having the final say *alone or jointly*, the association between autonomy and health care becomes smaller and no longer significant (bottom half of table 5). Further, in models where joint and alone decision-making are compared separately to *not* having the final say at all, the coefficient for joint decision-making is not only insignificant, but usually slightly negative (results not shown).[4] Due to this finding, the rest of the health results will be reported according to autonomy defined as a woman *alone* having the final say on at least one non-cooking decision.

Turning attention back to potential differences by spouses' reports of autonomy, the results also indicate that when modeled separately husbands and wives reports of women's autonomy indicate the same substantive interpretation (table 5). The odds ratios for women's autonomy are positive, significant, and of a similar magnitude for both husbands' and wives' responses. Thus, both husbands' and wives' reports support the positive association between women's autonomy and health. For example, the odds of woman having a tetanus toxoid injection is 63% greater if she says she is autonomous and 66% greater if her husband says she is autonomous. Husbands do appear to be better predictors of a child being fully vaccinated, with an odds ratio of 2.02 compared to the women's odds ratio of 1.65. However, none of the

[4] The vaccination outcome is an exception to this statement. Joint decision-making does have a small, positive association with a child being fully vaccinated, but not with the other outcomes.

differences between husbands' and wives' odds ratios are significant. Thus overall, husbands and wives responses appear to be interchangeable, suggesting that there is not a compelling justification to use data from husbands for this type of question.

However, when spouses' responses are interacted, an added value of couple level data becomes apparent (table 5). Using only women's responses may be underestimating the association between women's autonomy and health outcomes. The association becomes two to three times larger when both spouses agree that the wife is autonomous. For example, according to women's reports, the odds of receiving antenatal care are 68% higher if a woman says she is autonomous. However, if *both* she and her husband say she is autonomous, the odds of receiving antenatal care are more than twice as large. Similarly, the odds of a child being fully vaccinated are 60% greater if the mother says she is autonomous and more than four times as large if both parents say the mother is autonomous.

The interaction models further suggest a positive association between women's autonomy and health even when spouses do not agree. The odds ratios for only one spouse saying the wife is autonomous are also positive. Although, the odds ratios for autonomy within these discordant couples are not always significant. For example, if *only* the wife says she is autonomous the odds of receiving antenatal care are 75% greater than if neither spouse reports that the wife is autonomous.

Delivery care is somewhat of an exception to this general pattern. While the odds ratios for women's autonomy are positive, it is not significant for husbands' response and only significant at the 0.10 level for women's response. Further, the odds ratio for women's autonomy is not larger when spouses agree that the wife is autonomous. The lack of significance is partially due to the small proportions of women who alone have the final say on a decision and

also receive assistance from a health professional during delivery. However, the lack of significance is partially due as well to a difference for delivery care between husbands and other household members making decisions. Unlike the other health outcomes, other household members making decisions has a positive association with delivery care when compared to husbands making decisions. When the model controls for other household members' decision-making, the odds ratios for women's autonomy and delivery care become larger, significant, and, thus, more comparable to the odds ratios in the other health care models.

On the other hand, the vaccination outcome exemplifies these patterns to an even greater degree. The odds ratio for spouses' agreeing on the mother's autonomy is twice as large for vaccinations as it is for the other outcomes. Children are over four times as likely to be vaccinated if their parents agree that the mother is autonomous, while women are about twice as likely to receive pregnancy care if she and her husband agree on her autonomy. The number of couples who agree is too small to definitively explain the reasons for this difference, but exploratory work suggests that women's autonomy has greater scope for improving child care. Autonomous women are less likely to have problems accessing money and gaining permission for health care, but are just as likely to worry about having a female health care provider (results not shown). Worries about female health care providers are not as important a barrier for children's health care as they are for maternal health care. Therefore, the barriers associated with children's health care may be better addressed by women's autonomy, than those with maternal care. Further, it is likely that women feel more comfortable asserting their decision-making power on behalf of their children as part of their accepted role as mothers, than for themselves. Maternal health care also benefits children health, but is provided directly to women and is not for children's benefit alone.

Taken together, these results raise additional questions about the associations between women's autonomy and health care. The fact that only women having the final say *alone* on a decision has a significantly positive effect, suggests that the stronger women's power, the better the health outcome. The much larger association between wife's autonomy and health care use when spouses' agree, further supports this interpretation. It is very likely that couple agreement is more common when wife's participation in decision-making is stronger as demonstrated by greater influence over decisions or participating in decisions more frequently.

It is also possible that couples where both spouses say the wife alone has the final say on a household decision also contain exceptional men. For example, men in such couples may have strong affection for their wives or be especially concerned with their wife and children's welfare. These qualities may make them more likely to involve their wives in decision-making and more likely to support health care for their wife and children. Thus, part of the effect of couple agreement about women's autonomy may be a spurious effect due to correlation with men who are more concerned with securing health care for their families.

However, results from another study on women's autonomy and maternal health care in Nepal do not support this interpretation. Using the same questions on decision-making for a sample of women receiving antenatal services at a hospital in Kathmandu, Beenhakker et al. (2005) found that women who had the final say *alone* on decisions were less likely to report their husband accompanying them to the hospital and discussing health and making birth preparations with their husbands. On the other hand, women who had the final say *jointly* with husbands were more likely to report husband's involvement. Thus, their results imply that women making decisions alone are not more likely to benefit from men's involvement in health care.

Part of the apparent disparity in Beenhakker and colleagues' results and those presented here may be due to differences between the urban capital and the country on average. However, it is also very possible that the association between women's decision-making with receiving pregnancy care is substantially different from that with husband's involvement in care. Women making decisions *alone* may make them much more likely to receive maternal health care in the first place. But, among the women who do receive care, *joint* decision-making may be associated with greater husband involvement in that care.

**Conclusion**

While incorporating data from men certainly does not invalidate previous conclusions on autonomy based on data collected from women only, it does add to our understanding. Couple agreement on who makes household decisions is far from perfect, but the determinants of autonomy are still similar according to both wives' and husbands' reports of the wife's autonomy. Some differences, however, do suggest that some key sources of empowerment, including wife's economic resources and education, may differ in their effect on men's perceptions. Further, the association between women's autonomy and health outcomes may be underestimated using data from women only. When spouses agree that the wife is autonomous, the association between autonomy and health care use is substantially larger.

These results also raise important questions about autonomy and the pathways between autonomy and health care. It may be that the greater women's autonomy, the greater the likelihood of receiving maternal and child health care. Joint decision-making did not improve health outcomes. It is only when women alone have the final say on a decision that they are more likely to receive maternal health care. Couple agreement that the wife is autonomous, may also be an indication of a stronger level of autonomy and this too is associated with a greater

likelihood of receiving health care. Part of the strong effect of couple agreement may also be due to exceptional qualities of the men in agreeing couples, although, as discussed above, Beenhakker et al.'s (2005) work on male involvement does not support such a conclusion.

However, this interpretation of alone decision-making denoting greater power is far from definitive. This exploration of couple agreement on wife's autonomy also highlights the ambiguities in the measurement of autonomy. As Karen Mason pointed out in the session on gender inequality in developing countries at the 2005 Annual Meeting of the Population Association of America, it is not clear what these questions on decision-making really mean. The health analysis presented here suggests a substantive difference between joint and alone decision-making, but the substantial amount of disagreement between spouses further indicates that respondents are not sure what the difference is. Although, spouses often disagree on even much more objective questions, such as what assets their household has (Bignami-Van Assche and Cotts-Watkins 2004; Becker 1996).

Despite this ambiguity, researchers have come to diverse conclusions based on their own interpretations of the difference between alone and joint control over resources and decision-making. Beenhakker et al. (2005) suggest that joint decision-making designates gender egalitarian couples, while decisions made by women alone denote autonomy, which is accompanied by little to no support from their husbands. Thus, they conclude that joint decision-making is preferable. On the other hand, in their discussion of micro-credit, Goetz and Sen Gupta (1996) suggest that women's individual control is necessary to improve women's position. And, somewhere in the middle, Kabeer (2001) notes that joint decision-making is not necessarily a poor outcome for women and that women themselves do not privilege individual control over joint control of resources. Clearly, further research, including especially qualitative research, is

needed to explore how couples and households negotiate decision-making and how such negotiations may be best measured to improve and better interpret the indicators of autonomy used in quantitative surveys. The results presented further indicate that such research would certainly benefit from men's participation.

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Table 1. Crosstabulations of spouses' responses to decision-making questions.

| Who in your family usually has the final say on the wife's health care… | | | | | |
|---|---|---|---|---|---|
| | **Husband says:** | | | | |
| **Wife says:** | Husband | Wife jointly | Wife alone | Other(s) | Total |
| Husband | 55.2 | 6.7 | 0.6 | 1.2 | 63.7 |
| Wife jointly | 12.3 | 2.3 | 0.7 | 0.5 | 15.7 |
| Wife alone | 5.1 | 0.4 | 0.7 | 0.3 | 6.6 |
| Other(s) | 10.5 | 0.5 | 0.1 | 2.9 | 14.1 |
| Total | 83.1 | 9.8 | 2.1 | 5.0 | 100.0 |

Percent agreeing = 61.1

| Who in your family usually has the final say on large household purchases… | | | | | |
|---|---|---|---|---|---|
| | **Husband says:** | | | | |
| **Wife says:** | Husband | Wife jointly | Wife alone | Other(s) | Total |
| Husband | 31.9 | 15.7 | 1.6 | 2.1 | 51.2 |
| Wife jointly | 10.6 | 8.4 | 1.8 | 0.8 | 21.6 |
| Wife alone | 2.5 | 2.4 | 2.1 | 0.2 | 7.1 |
| Other(s) | 7.5 | 1.2 | 0.1 | 11.4 | 20.2 |
| Total | 52.6 | 27.7 | 5.5 | 14.4 | 100.0 |

Percent agreeing = 53.8

| Who in your family usually has the final say on daily purchases … | | | | | |
|---|---|---|---|---|---|
| | **Husband says:** | | | | |
| **Wife says:** | Husband | Wife jointly | Wife alone | Other(s) | Total |
| Husband | 20.1 | 11.2 | 5.4 | 2.4 | 39.1 |
| Wife jointly | 8.4 | 7.8 | 3.4 | 1.1 | 20.8 |
| Wife alone | 5.6 | 6.2 | 8.1 | 0.5 | 20.4 |
| Other(s) | 5.4 | 1.1 | 0.4 | 12.8 | 19.7 |
| Total | 39.5 | 26.3 | 17.3 | 16.8 | 100.0 |

Percent agreeing = 48.8

| Who in your family usually has the final say on visits to family or relatives … | | | | | |
|---|---|---|---|---|---|
| | **Husband says:** | | | | |
| **Wife says:** | Husband | Wife jointly | Wife alone | Other(s) | Total |
| Husband | 23.0 | 16.1 | 0.9 | 2.0 | 42.0 |
| Wife jointly | 14.4 | 11.7 | 1.6 | 1.4 | 29.1 |
| Wife alone | 3.3 | 3.5 | 0.8 | 0.4 | 8.0 |
| Other(s) | 7.4 | 1.7 | 0.1 | 11.7 | 20.9 |
| Total | 48.2 | 32.9 | 3.4 | 15.5 | 100.0 |

Percent agreeing = 47.2

| Who in your family usually has the final say on food to be cooked … | | | | | |
|---|---|---|---|---|---|
| | **Husband says:** | | | | |
| **Wife says:** | Husband | Wife jointly | Wife alone | Other(s) | Total |
| Husband | 0.1 | 0.1 | 0.8 | 0.1 | 1.1 |
| Wife jointly | 0.2 | 0.4 | 5.3 | 2.7 | 8.6 |
| Wife alone | 2.6 | 5.2 | 62.0 | 5.1 | 74.9 |
| Other(s) | 0.7 | 0.4 | 6.0 | 8.3 | 15.4 |
| Total | 3.6 | 6.2 | 74.1 | 16.1 | 100.0 |

Percent agreeing = 70.8

Figure 1. Couples' agreement on whether the wife *alone or jointly* usually has the final say on five decisions.

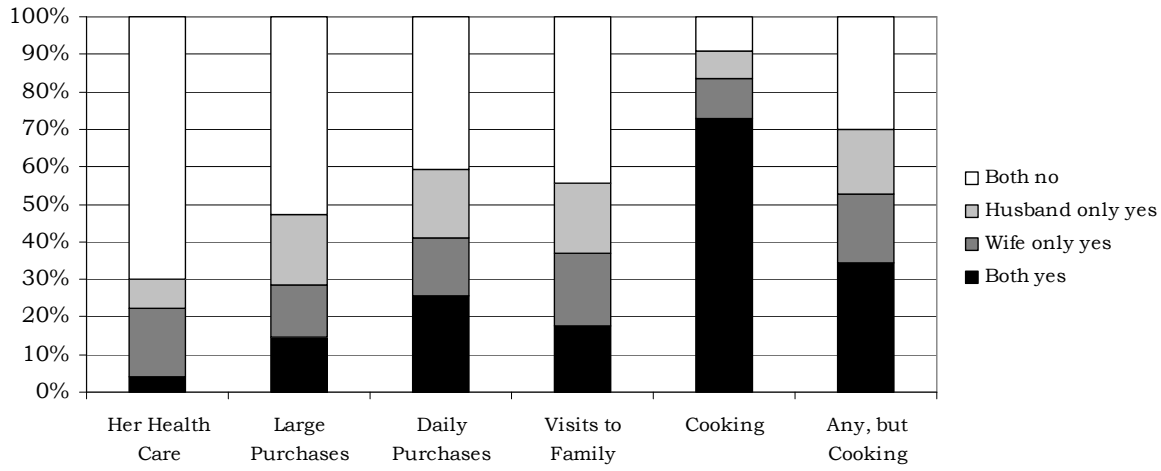


Figure 2. Couples' agreement on whether the wife *alone* usually has the final say on five decisions.

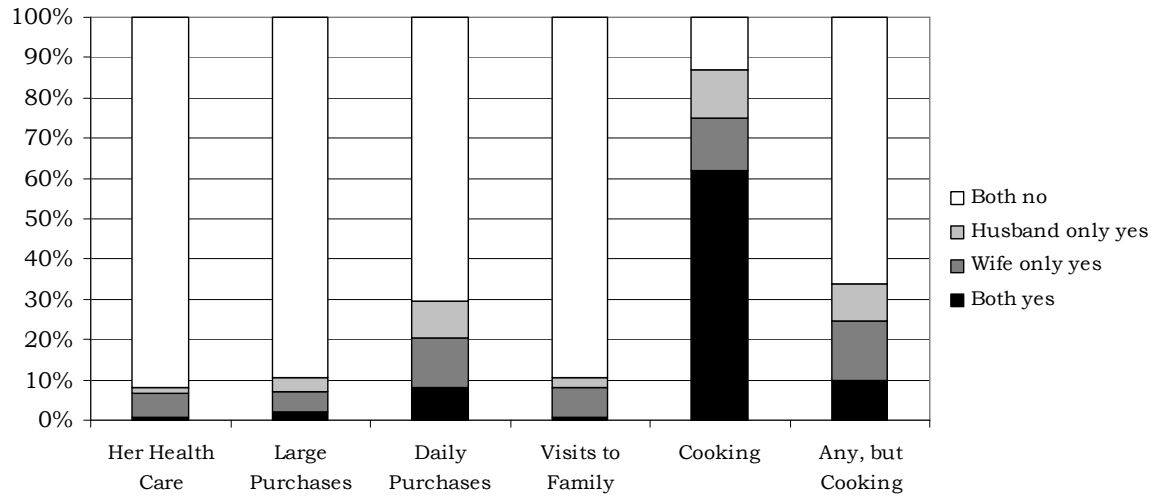

Table 2. Definitions of selected variables.

| ***Variable*** | ***Definition*** |
|---|---|
| Caste: High caste | Respondent is a member of Brahman, Chhetri, Thakuri, or Rajput castes |
| Caste: Tibeto-Burman | Respondent is a member of Newar, Gurung, Magar, Tamang, Sherpa, Rai, or Limbu ethnic groups |
| Caste: Other caste | Respondent is neither high caste nor Tibeto-Burman |
| Wealth index | A principle components analysis of the household's flooring material, toilet facilities, cooking fuel, water source, electricity and consumer durables, including a radio, television, telephone, and bicycle, adjusted by the number of household members |
| Husband drinks | Husband reports drinking one or more alcoholic beverages in the last seven days |
| Antenatal care | Mother had at least one antenatal care visit with a health professional |
| Tetanus injection | Mother received at least one tetanus toxoid injection before delivery to prevent neonatal tetanus |
| Delivery care | Birth was attended by a medical professional |
| Fully vaccinated | Child one year or older received all eight recommended vaccinations, including one BCG vaccination for tuberculosis, three polio vaccinations, one measles vaccination, and three DPT vaccinations for diphtheria, pertussis, and tetanus |

Table 3. Descriptives for control and health care variables.

| | **1,585 Couples** Autonomy Sample % | **1,043 Couples with Children** Health Sample % |
|---|---|---|
| Hindu | 85 | 83 |
| Caste | | |
| High caste | 29 | 26 |
| Tibeto-Burman | 24 | 24 |
| Other caste | 47 | 49 |
| Urban residence | 10 | 8 |
| Household wealth | mn: -.02 sd: .96 | mn: -.15 sd: .83 |
| Couple are household heads | 74 | 72 |
| Household size | mn: 6.8 sd: 3.2 | mn: 7.0 sd: 3.2 |
| Wife's age | mn: 31.2 sd: 8.9 | mn: 28.1 sd: 6.7 |
| Wife's education | | |
| No schooling | 73 | 74 |
| Primary schooling | 14 | 13 |
| Secondary schooling | 13 | 13 |
| Wife owns land | 10 | 6 |
| Wife owns livestock | 27 | 27 |
| Wife's employment | | |
| Not working | 17 | 17 |
| Working, unpaid | 57 | 59 |
| Working, paid in kind only | 13 | 12 |
| Working, paid in cash | 13 | 12 |
| Husband's employment | | |
| Self-employed agriculture | 63 | 63 |
| Professional or clerical | 17 | 17 |
| Manual or unemployed | 19 | 20 |
| Husband drinks | 38 | 41 |
| Antenatal care | - | 40 |
| Tetanus injection | - | 52 |
| Delivery care | - | 13 |
| Fully vaccinated | - | 67[†] |

[†]n = 769

Source: Nepal Demographic and Health Survey, 2001

Table 4. Bivariate probit results of spouses' reporting of whether the wife *alone* has the final say on at least one of four non-cooking decisions.

| | Wife *alone* has final say on at least one decision | | | | |
|---|---|---|---|---|---|
| | Wife yes | | Husband yes | | βs Differ |
| | β | (Robust SE) | β | (Robust SE) | Significantly |
| Hindu | 0.10 | (.101) | 0.06 | (.133) | |
| Caste | | | | | |
| High caste | 0.41** | (.097) | 0.14 | (.116) | * |
| Tibeto-Burman | 0.40** | (.110) | 0.54** | (.123) | |
| Other caste (ref) | 0 | | 0 | | |
| Urban residence | 0.45** | (.153) | -0.14 | (.200) | * |
| Household wealth | 0.08 | (.055) | 0.13† | (.068) | |
| Couple are household heads | 0.39** | (.121) | 0.91** | (.142) | * |
| Household size | -0.04** | (.015) | -0.04* | (.020) | |
| Wife's age | 0.01** | (.005) | 0.02** | (.006) | |
| Wife's education | | | | | |
| No schooling (ref) | 0 | | 0 | | |
| Primary schooling | 0.10 | (.115) | 0.28* | (.116) | |
| Secondary schooling | 0.19 | (.127) | 0.50** | (.119) | * |
| Wife owns land | 0.30* | (.117) | 0.11 | (.120) | |
| Wife owns livestock | 0.20* | (.086) | 0.16† | (.094) | |
| Wife's employment | | | | | |
| Not working (ref) | 0 | | 0 | | |
| Working, unpaid | -0.19 | (.115) | -0.21 | (.156) | |
| Working, paid in kind only | 0.25† | (.133) | 0.00 | (.174) | |
| Working, paid in cash | 0.56** | (.141) | 0.01 | (.156) | * |
| Husband's occupation | | | | | |
| Self-employed farmer (ref) | 0 | | 0 | | |
| Professional or clerical | 0.16 | (.127) | 0.47** | (.127) | * |
| Manual or unemployed | 0.32** | (.109) | 0.58** | (.116) | † |
| Husband drinks | 0.20* | (.079) | 0.22* | (.092) | |
| Constant | -1.90** | (.236) | -2.50** | (.266) | |
| ρ | 0.31** (.052) | | | | |
| n | 1,858 | | | | |
| -2 Log likelihood | 3,145.4 | | | | |

†p<0.10 *p<0.05 **p<0.01

Source: Nepal Demographic and Health Survey, 2001

Table 5. Odds ratios for associations between health care use and spouses' reporting of women's autonomy. All models control for religion, caste, urban residence, household wealth, household size, wife's age, wife's education, husband's education and whether distance to a health facility is a big problem.

| | | Antenatal care | Tetanus injection | Delivery care | Fully vaccinated |
|---|---|---|---|---|---|
| Wife *alone* has final say on at least one decision | Wife's response only | | | | |
| | Wife yes | 1.94** | 1.95** | 1.49 | 1.65* |
| | Husband's response only | | | | |
| | Husband yes | 1.84** | 1.72* | 1.27 | 2.02** |
| | Both spouses' response | | | | |
| | Wife yes | 1.75* | 1.79* | 1.44 | 1.46† |
| | Husband yes | 1.58* | 1.48† | 1.12 | 1.84* |
| | Responses interacted | | | | |
| | Both no (ref) | 1.00 | 1.00 | 1.00 | 1.00 |
| | Wife only yes | 1.75* | 1.82* | 1.69† | 1.25 |
| | Husband only yes | 1.59 | 1.52 | 1.43 | 1.45 |
| | Both yes | 2.76** | 2.59** | 1.46 | 3.52** |
| Wife *alone or jointly* has final say on at least one decision | Wife's response only | | | | |
| | Wife yes | 1.13 | 1.13 | 0.96 | 1.02 |
| | Husband's response only | | | | |
| | Husband yes | 1.25 | 1.01 | 0.93 | 1.68* |
| | Both spouses' response | | | | |
| | Wife yes | 1.11 | 1.13 | 0.96 | 0.95 |
| | Husband yes | 1.24 | 1.00 | 0.93 | 1.70* |
| | Responses interacted | | | | |
| | Both no (ref) | 1.00 | 1.00 | 1.00 | 1.00 |
| | Wife only yes | 0.90 | 0.94 | 1.08 | 1.01 |
| | Husband only yes | 1.03 | 0.85 | 1.05 | 1.81* |
| | Both yes | 1.37 | 1.13 | 0.90 | 1.61† |

†p<0.10 *p<0.05 **p<0.01

Source: Nepal Demographic and Health Survey, 2001