Individual and intra-household positionality in Vietnam

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ABSTRACT

We contribute new individual and intra-household findings to the literature on positionality – the degree to which an individual's perceptions of well-being are influenced by his or her income or consumption relative to others – using primary data from Vietnam. In addition to a rich field setting for testing social preferences, we interviewed male and female spouses separately providing novel gender disaggregated data and intra-household measures. We find that income is positional for two-thirds of the respondents, with a fifth willing to continue foregoing absolute income to maintain their relative position. Unlike earlier results, we find that women are more positional on average than men. Our results suggest that one's sensitivity to positionality is related to changes in one's relative position over time; respondents reporting a higher standard of living at the time of marriage were associated with a higher degree of positionality. We find an association between accord in a couple's positionality and the degree to which wives exercise decision making authority in the household.

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"The son of a king will become king
The son of a temple janitor will sweep the leaves
When the people rise up and take over
The son of a king will lose power and sweep the temple."[2]

1. Introduction

Understanding positionality – the degree to which an individual's perception of well-being is influenced by his or her income or consumption relative to others – is central to constructing development policy and programmes that work to produce net benefits for poor communities. If development interventions produce positional goods that are unevenly distributed, any gains in well-being to a subset of the population can be offset by losses to others whose relative position has worsened, even if their absolute position remains unchanged. Hence considerations of who is sensitive to changes in relative position and what goods are positional can inform development debates over the merits of cash versus in kind transfers and the efficacy of targeting sub-populations. Understanding what interventions are most likely to be positional across most individuals, and whether there are differences in positionality across sub-populations or within households, has implications for the net change in welfare resulting from development efforts.

We contribute to this literature with new findings that build on the small body of empirical work on positionality in a developing country context, and in particular on Carlsson et al. (2007a) that looks at positionality in Vietnam. Vietnam's history under a communist regime that idealized equality makes it a particularly interesting country context in which to study social preferences. Unlike most previous studies, we are able to make use of a large, field-based, and randomly sampled group of households. Unique to this work, we interviewed male and female heads of households separately, allowing us to test for intra-household implications of positionality. The central aims of our study are to understand if income is positional, if sub-populations (women and wealth classes) are differentially positional, and if spouses have the same positional preferences, or preferences at least more in common than randomly paired men and women. We begin by reviewing the recent empirical literature on positionality and in particular, developing country work. Based on the literature to date, we look for evidence of income as a positional good in poor communes in rural Vietnam. We then estimate a model predicting positionality based on individual and household characteristics, look at wealth and gender more closely, and conclude with our intra-household results.

Our findings suggest that in the Ha Tinh province of Vietnam, income is positional: approximately two-thirds of respondents cared about relative position, and a fifth (22 per cent) were willing to continue foregoing absolute income to maintain their relative position. Unlike earlier results we found that positionality varies across gender, with women more positional than men, but less willing to give up absolute income in order to achieve a greater position. Our results suggest that one's sensitivity to positionality

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  [2] Old Vietnamese poem (Fuller, 2012).

is related to changes in one's own position over time. Respondents who reported a higher standard of living at the time of marriage were associated with a higher degree of positionality. Our results also suggest that husbands and wives do not have identical social preferences (challenging the unitary household model) but that spousal preferences are more similar than those of randomly matched men and women. Finally, our results show an association between accord in positionality within a couple and the degree to which wives exercise decision making authority within that household.

2. Background and theory

That relative position matters, and that consumption may be used to signal status has been observed at least since Smith (1776): "A credible day-labourer would be ashamed to appear in public without a linen shirt, the want of which would be supposed to denote that disgraceful degree of poverty, to which it is presumed, nobody can well fall into without extreme bad conduct."[3] The term "conspicuous consumption", the lavish spending to signal social standing, was coined by Veblen (1899) a hundred years later. The importance of relative position gained renewed attention with Frank (1985, 1997) and others exploring the "economics of happiness" (Easterlin, 1995, 2000, 2001; McBride, 2001; Ferrer-i-Carbonell, 2005). Following from the general proposition that utility depends on absolute and relative position, Hirsch (1976) wrote of positional goods – including income or leisure – for which personal utility depends on other's consumption of the good. The importance of positional goods in the public finance literature has been articulated by Frank (1997, 2005) who argued that competition for positional goods is inefficient, hence they should be differentially taxed at higher rates than non-positional goods.

From this work there has been a small empirical literature on what is a positional good, including comparisons of public to private goods, goods to bads, and luxuries to necessities, attempting to characterize the most salient features of positional goods, such as their visibility, income elasticity, and whether they are in fixed supply (Solnick and Hemenway, 1998, 2005; Pagano, 1999, 2007; Heffetz, 2004; Carlsson, Johansson-Stenman, & Martinsson, 2007b). Most relevant to our work, the majority of these studies conclude that income is a positional good and generally more so than leisure (see also Frank, 1985; Pingle and Mitchell, 2002; Johansson-Stenman, Carlsson, & Daruvala, 2002; Luttmer, 2005; Alpizar, Carlsson, & Johansson-Stenman, 2005; Akay, Karabulut, & Martinsson, 2013).

Much less common to this literature is work on individual variations in positionality, though most of us would argue that we observe different proclivities to prestige goods among our colleagues. One reason is that experimental methods often use fairly homogenous student populations, with limited variability in several socio-economic characteristics, such as income, that are nonetheless central to development efforts. The belief that positionality exists even among the very poor dates to Adam Smith's day labourer and Karl Marx (1849, p. 33): "A house may be large or small, as long as the neighbouring houses are likewise small..." Veblen (1899) maintained that conspicuous consumption prevails across all income levels but is most detrimental to the poor because of the disproportionate burden that spending on positional goods places on them. More contemporary authors have written of globalization allowing for more cross-national standard of living

comparisons, and the international demonstration effect that may have "profoundly different" welfare implications for developing countries (James, 1987). Carlsson, Gupta, and Johansson-Stenman's (2009) survey of income among Indian castes finds significant positionality within castes, with slightly more than half of the marginal utility of income coming from relative income effects. Moreover, they find that this income effect is more pronounced for lower castes and those with the lowest income. Conversely, while testing for sensitivity to both overall income and aid transfers in rural Ethiopia, Akay, Martinsson, and Medhin (2012) find comparatively low sensitivity to relative income, and suggest a threshold effect of a minimum income level at which positionality becomes pertinent.

Frank (1999) concludes that from an evolutionary standpoint, men will care more than women about relative social status. In Croson and Gneezy's (2004, p. 38) review on gender differences in social preferences they find that women are more generous than men with people they know, but men are more generous than women with strangers. They conclude that women's "other-regarding" preferences are more context-dependent, following on the generally held notion that women are more sensitive to social cues. Perhaps reflecting these contextual differences, the findings on gender and positionality are inconsistent. Carlsson, Gupta, and Johansson-Stenman (2009) found women in India to be less positional than men, opposite to Alpizar, Carlsson, and Johansson-Stenman's (2005) results for a student population in Costa Rica, and counter to Johansson-Stenman, Carlsson, and Daruvala (2002) who earlier reported no significant gender differences for a sample of students in Sweden. Akay, Martinsson, and Medhin's (2012) results from Ethiopia suggest that marriage, rather than gender, matters for positionality.

The hypothesis that sensitivity to positionality varies contextually also applies to explaining results across countries and cultures, and translating classroom results to behaviours in the field (e.g. Solnick, Hong, & Hemenway, 2007). A recent field experiment in Turkey found that during a religious festival that emphasizes sharing (Ramadan), the positionality of less religious Muslims (measured by the degree of fasting) declined compared to his or her positionality outside of Ramadan. For more religious Muslims, no change in positionality was associated with the religious festival, and positional concerns overall were similar to those in Western countries (Akay, Karabulut, & Martinsson, 2013). Akay, Martinsson, and Medhin's (2012) survey of rural farmers in Ethiopia finds lower income positionality than urban samples in the U.S., Sweden, and Costa Rica, though Carlsson and Qin's (2010) results in rural China are consistent with urban studies. Carlsson et al.'s (2007a) sample of rural farmers in the Binh Phuoc province of Southern Vietnam suggests an exceptionally low preference for relative position, even compared to the rural poor elsewhere. The authors invoke Samuel Bowles' (1998) argument that markets and other local economic institutions influence the evolution of our values and tastes.

Gaining a better understanding of what is positional, and to whom, is fundamental to informing international economic development that seeks outcomes that on net, benefit poor communities. Research is limited by the cost of conducting field work with a sufficiently large and random sample that enables analysis across socio-economic characteristics, and the difficulty of using hypothetical scenarios in some circumstances. Our work directly addresses some of these concerns. Using experienced local enumerators, we obtain a large, random sample that allows us to partially replicate earlier work in a developing country to understand the robustness of earlier results (replicating the country context but varying the region), and obtain new results with additional survey information and methods. The first part of the paper is devoted to this analysis and offers new results on the effects of gender and

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[3] Quote from Heffetz (2004), who argues that positional signalling dates back to Plato, who stated in *The Republic*, "Since...appearance tyrannizes over truth and is lord of happiness, to appearance I must devote myself."

reference points on positionality. In addition, we contribute the first intra-household results on positionality.

2.1. Vietnam

Following reunification of North and South Vietnam in 1976, the Vietnamese Communist regime enacted social and economic reforms espousing social justice and equality. Land was collectivized into large holdings, growth slowed, and the country suffered from high inflation rates. In 1986 the Vietnamese government established a period of *doi moi*, or "renovation," transitioning Vietnam's centrally planned economy to a "socialist-oriented market economy." Individual families could now rent and manage land for longer periods of time as well as buy supplies and sell their goods in private markets. Growth has been relatively strong since the *doi moi* economic reforms of the late 1980s, though with the benefits unevenly distributed. In 2009, approximately 12 per cent of Vietnam's population was estimated to live below the national poverty line (20 per cent below the world poverty line), with much of the poverty concentrated in the rural and highland regions. Around the time of our survey, GDP per capita (2005 PPP $) was $2611, and the country ranked 127 of 182 in the Human Development Index.[4,5]

3. The survey

Between March and May of 2008, enumerators from the Vietnam Institute for Family and Gender Studies randomly sampled 1165 individuals in 637 households in the Thach Lac, Tuong Son, and Thach Viet communes of Vietnam's Ha Tinh province. Located in the north-central coastal region, Ha Tinh province is particularly poor with 40 per cent of households below the poverty line. At the time of the survey, median annual income for respondents was U.S. $1212. The average agricultural landholding was 0.87 acres and many households farmed at the subsistence level. The province has poor quality soil and is flood and drought prone.

Enumerators separately administered a survey to both spouses in each household, except in cases where the woman was a widow or her husband had migrated for work. This resulted in 505 households with both a husband and wife respondent. Information was collected on the respondent's demographics, livelihood activities and other measures of socio-economic status, experience with local development efforts, attitudes towards risk and market orientation, and social preferences. Appendix A contains additional descriptive statistics of the sample.

We modelled our social preference question after Carlsson et al. (2007a). Enumerators proposed a series of paired choice options in which survey respondents were asked to imagine they had the opportunity to engage in an economic activity associated with a particular economic return. We also asked them to assume that anybody in the village could engage in this same activity and that there were no costs associated with it. Using the cards below as an example, we asked respondents to choose between two scenarios which differed only in the yearly income that they and others in their village would receive from this activity. For each question, respondents chose between two cards that described their returns from the investment in relation to the rest of the village's returns from the investment.

Option A: Every year	Option B: Every year
YOU make VND 2,500,000 and PEOPLE IN THE VILLAGE make VND 3,000,000	YOU make VND 2,300,000 and PEOPLE IN THE VILLAGE make VND 2,000,000

Table 1
Distribution of marginal degree of positionality among entire population ($n = 1165$).

Marginal degree of positionality	N	Per cent (%)	Carlsson et al. (%)
(1) $\gamma < 0$	390	34	40
(2) $0 < \gamma < 0.25$	255	22	25
(3) $0.25 < \gamma < 0.46$	124	11	09
(4) $0.46 < \gamma < 0.66$	144	12	10
(5) $\gamma \geq 0.66$	252	22	16

We clarified that in this first question, the respondent's income would be higher in Option A than in Option B, but that they would make less than the village average in Option A and more in Option B. When the example was clear, we presented respondents with the series of questions below. Option A remained the same during the entire series. Option B changed as the questions progressed. If a respondent ever chose Option A, the questions stopped. As long as the respondent answered Option B, the questions continued for a total of 5 paired questions.[6]

	Own Income From Activity (VND)	Average Income in the Village From Activity (VND)
Option A	2,500,000	3,000,000
Option B1	2,500,000	2,000,000
Option B2	2,250,000	2,000,000
Option B3	2,040,000	2,000,000
Option B4	1,840,000	2,000,000

Based on their choices we classified respondents by their marginal degree of positionality, or MDP. The MDP is a measure that captures how much of any utility increase experienced from a rise in income is due to the increase in relative income. Johansson-Stenman, Carlsson, and Daruvala (2002) describes two methods for determining the MDP, the ratio method and the added value method. Following Carlsson et al. (2007a), we use an additive comparison utility function, such that:

$$V = (1 - \gamma)x + \gamma(x - \mu)$$

where γ is the MDP and μ is average income. An individual will be indifferent between two options when $x_A - \gamma\mu_A = x_B - \gamma\mu_B$, which implies:

$$\gamma = \frac{x_A - x_B}{\mu_A - \mu_B}$$

The added value method results in a five-interval scale that translates each respondent's answers into a MDP value. Plugging in values for the choice of A or B1, for example, produces $\gamma = 0$. If an individual prefers A over B1, $\gamma < 0$; if an individual prefers B1, $\gamma > 0$. For individuals who chose option A immediately, an option with a higher average return for others in the commune and no change to their absolute level, income is not positional. If a respondent preferred the B option throughout the series of questions, he or she is assigned a MDP ≥ 0.66. In general, the longer a respondent stayed in the game (the more rounds it took before option A was selected), the more he or she valued his or her relative income (as measured by a willingness to lose absolute income) and the higher his or her marginal degree of positionality. Table 1 shows the per cent of the sample in each MDP range, translated into values between 1 (<0) and 5 (0.66). The results indicate that approximately two-thirds of the sample was positional, with almost a fifth (22 per cent) willing to continue to forego absolute income beyond Option B4 to maintain their relative position.

The final column of Table 1 gives Carlsson et al.'s (2007a) results which showed that in comparison to other countries where similar studies had been conducted, Vietnamese respondents displayed a relatively weak preference for status. Citing Bowles' (1998) work on how institutions influence the evolution of values, the authors suggest that Vietnamese preferences may reflect the historical importance of equality under the communist regime, farmer participation in cooperatives, and a current concern with how their activities are perceived by the local community.

Our median MDP value of 0.125 is equivalent to Carlsson et al.'s (2007a) estimate of less than 0.25 (0.125 if using interval mid values). Our mean MDP of 0.35, however, is significantly higher than their estimate of 0.28 ($p < 0.001$). Yet a priori, one might expect that a more southerly, wealthier, and commercially oriented province would elicit higher – not lower – MDPs, closer to developed country estimates. There are several possible reasons for this result. Carlsson et al. (2007a) surveyed the Binh Phuoc province, south of Ha Tinh, where farmers grow more cash crops (cashews, rubber, and pepper), relative to the staple crop farming of Ha Tinh.[7] Hence farmers in Binh Phuoc may rely more on communal labour and cooperation for a successful harvest, while farmers in Ha Tinh rely more on family remittances as an income source – creating a different social preference environment.[8] Another explanation may simply be the six year time difference between surveys. If, as the authors speculate, the communist regime's legacy stressing equality is partly responsible for the Vietnamese's relatively low MDP, the further one moves from this period, the less one would expect the past institutions to differentially affect current social preferences. Interestingly, however, equality in Vietnam has increased since 2002 as measured by the Gini coefficient, suggesting that other factors may play a role in individual positionality.[9] We test for these factors in the following section.

4. Results

Using the data and methods described above, we present three sets of results: a multivariate regression testing for correlates of individual positionality, additional results for subpopulations based on gender and income, and an intra-household comparison between husbands and wives.

4.1. All individuals

We begin by estimating a regression equation as close as possible to the one specified in Carlsson et al. (2007a), including income quintiles, age, education, religion, communist party membership and household size. Our age dummy variable for respondents that were young adults during Vietnam's capitalist period is adjusted by the six year difference between surveys. Only two respondents in our sample indicated Buddhism as their religion, but Ha Tinh province has a large proportion of Catholic communes along the coast, a remnant of missionary activity beginning in the 16th century. Our religion variable is therefore a dummy for Catholic (1 = Catholic and 0 = otherwise), which reveals that Catholics represent about 25 per cent of our sample (relative to 7 per cent Catholics country-wide). Our data do not include motorcycle ownership or membership in a peasant association, variables used by Carlsson

et al. (2007a). Because of the categorical nature of the paired questions, we only know the MDP range in which the individual falls, rather than his or her specific MDP value. Hence we use an interval estimation technique to account for the dependent variable's five MDP categories into which all respondents are categorized.

Table 2 presents the results of Model 1 that attempts to mimic Carlsson et al. (2007a). Like Carlsson, we note but do not attempt to correct for possible bias from endogenous regressors. These earlier results found that membership in the Communist Party, household size, and ethnicity, were positively and significantly related to MDP, while being a member of a Peasant Association or owning a television set were significantly negatively related. Communist Party membership was the strongest relationship, associated with almost two tenths (0.19) of measured MDP. Education, age (intended to capture generational effects of *doi moi*), owning a motorcycle, income by quintile, and religion (Buddhist) were not significant.

Our results suggest that religion (Catholic), rather than membership in the Communist Party, is most strongly related to MDP. Being Catholic is associated with a 0.07 unit higher MDP; an approximately fifty per cent increase from the median MDP and twenty per cent from the mean. Contrary to Carlsson et al. (2007a), education beyond primary school is associated with a higher MDP by 0.05 units, but like earlier results our income quintiles were not significant.

To circumvent possible bias from respondent's income, we respecify a second model that uses historical rather than current measures of wealth.[10] We avoid using measures of current respondent wealth as a predictor of MDP, since MDP could also be argued to affect current wealth. This strategy also allows us to test for the effect of changes in one's position as a factor in explaining individual variance in positionality. We include variables that are exogenous to an individual's current position, but that would be expected to be formative and set a reference level from which later positionality would emerge, such as family wealth and one's standard of living at marriage, asset contribution to the household at marriage, and parent's membership (rather than own) in the Communist party. These factors are hypothesized to shape adult social preferences (Inglehart, 1977, 1990).

Results from Model 2 indicate that an individual's reference point – their previous standard of living and initial contributions to their married household – matters, with respondents that reported a higher standard of living at the time of their marriage than at the time of the survey significantly associated with a 0.16 unit greater MDP. Having a lower standard of living at the time of marriage was associated with a MDP 0.05 units lower. Similarly, respondents who reported having contributed more assets to the marriage than their spouses had MDPs on average 0.14 units higher than those who felt they contributed the same or fewer assets. In Model 2 the effect of Catholic religion is greater than in Model 1, and comparable to the magnitude of the respondent's standard of living before marriage.

4.2. Gender and income

Whereas Carlsson et al. (2007a) did not report MDP differences between men and women, we calculate the mean MDP for women as 0.36, slightly higher than the men's mean of 0.34, but not significantly so. In Model 2, however, controlling for other factors, our results indicate that being female is significantly associated with a MDP higher by .096; 27 per cent above the mean.

Table 2
Estimates of degree of positionality.

	Model 1: Replication of Carlsson et al. (2007a)		Model 2: Reference levels	
	Coefficient	SE	Coefficient	SE
Income quintile 1	−0.027	(0.090)		
Income quintile 2	−0.063	(0.078)		
Income quintile 3	−0.010	(0.054)		
Income quintile 4	−0.012	(0.044)		
Log of household wealth	−0.065	(0.083)		
Age 38–51	0.001	(0.019)	0.004	(0.037)
Primary school education	0.033	(0.024)	0.048	(0.044)
More than primary school	0.051*	(0.027)	0.071	(0.044)
Religion (Catholic)	0.067***	(0.026)	0.168*	(0.049)
Household size	0.002	(0.010)	−0.009	(0.013)
Member of Communist Party	−0.031	(0.038)		
Parent in Communist Party			0.054	(0.043)
Female			0.096**	(0.040)
Higher living standard at time of marriage than now			0.162**	(0.082)
Lower living standard at time of marriage than now			−0.053	(0.038)
Own family wealthier			−0.071	(0.046)
Spouse's family wealthier			−0.098**	(0.042)
Greater contribution of assets to marriage than spouse			0.135***	(0.047)
Constant	0.745	(0.617)	0.146	(0.082)
lnSigma	−1.165***	(0.022)	−0.621***	(0.036)
Uncensored observations	388			
Interval observations	768		509	
Left-censored observations			381	
Right-censored observations			247	
N	1156		1149	
Wald Chi^2	10.76		33.98***	

* Significance at the 10% level.
** Significance at the 5% level.
*** Significance at the 1% level.

Model 2 informs us of the difference associated with gender and average positionality. But looking at the full distribution of MDP across the five interval scale reveals additional gender differences. The only difference to the respondent's choice between option A and B1 in Table 3 is relative position, as the absolute return to the individual is 2,500,000 VND in each case. Sixty-three per cent of men chose option B1 over A, which confers a lower return to the rest of the commune than to themselves. But 69 per cent of women revealed themselves as positional in this choice (significantly different with a chi-square value at $p = 0.032$). Moving from B1 to B2, however, is the first decision point at which absolute income must drop – from 2,500,000 to 2,250,000 or about US \$15.50 – in order to maintain a higher relative income. When losses in absolute income are involved, the male–female differences reverse. Significantly more men (224 of the remaining 323 or 69.4%) than women (296 of the remaining 452 or 65.5%) are willing to accept a lower absolute income in order to maintain a higher relative position ($p = 0.02$).

Table 4 presents this result according to three respondent categories – those for whom income is not positional ($\gamma < 0$), those who care about relative position but will not give up absolute income ($0 < \gamma < 0.25$), and those who will give up absolute income for relative position ($\gamma > 0.25$). A cross tabulation in Table 4 suggests

Table 3
Distribution of women and men by marginal degree of positionality (MDP).

MDP	Frequencies		Frequencies	
	Women	% Women	Men	% Men
A $\gamma < 0$	201	30.8	189	36.9
B1 $0 < \gamma < 0.25$	156	23.9	99	19.3
B2 $0.25 < \gamma < 0.46$	72	11.0	52	10.2
B3 $0.46 < \gamma < 0.66$	83	12.7	61	11.9
B4 $\gamma \geq 0.66$	141	21.6	111	21.7
	(n = 653)		(n = 512)	

Table 4
Gender by MDP.

	No relative sensitivity ($\gamma < 0$)	Sensitive to relative but won't give up absolute wealth ($0 < \gamma < 0.25$)	Sensitive to relative and will give up absolute wealth ($\gamma > 0.25$)
Male	36.9%	19.3%	43.8%
Female	30.8%	23.9%	45.3%

$\chi^2 = 6.104$.

that gender and positionality are not independent ($p = 0.047$), with the largest positionality gap for women over men occurring when women are not required to forego absolute income to maintain their relative status.

Our results also differ from Akay, Martinsson, and Medhin's (2012) findings in Ethiopia. Akay found that men showed a higher MDP across all intervals than women, and that married respondents were more positional. The communist regime's emphasis on gender equality, including educational equity, relative to Ethiopia, may contribute to this difference. In Vietnam, for example, the Vietnam Women's Union remains relatively powerful. In the provinces we surveyed, women traditionally manage the household budget which may lead them to develop different preferences about their relative and absolute position in society, particularly given high expectations around social giving for weddings, funerals, and other commune events.[11]

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[11] A multivariate analysis of model 2 run separately for men and women found that only Catholicism was significantly associated with positionality for women, suggesting that most of the results in Table 2 stem from variation among men in the sample. Results are available from the authors.

Table 5
Coefficients and standard errors for Model 2 by wealth subgroups.

	Below average		Average		Above average	
Female	0.116[*]	(0.071)	0.078	(0.051)	0.189	(0.131)
Age	0.018	(0.069)	−0.018	(0.048)	0.023	(0.126)
Primary school	0.086	(0.080)	0.038	(0.055)	−0.103	(0.158)
More than primary school	0.004	(0.093)	0.109[*]	(0.061)	−0.081	(0.167)
Catholic	0.120	(0.093)	0.211[***]	(0.062)	0.031	(0.170)
Household size	−0.011	(0.023)	−0.011	(0.017)	−0.027	(0.063)
Parent in Communist Party	−0.007	(0.080)	0.073	(0.057)	0.126	(0.138)
Above average standard of living at marriage	−0.433[**]	(0.221)	−0.032	(0.096)	0.684[***]	(0.202)
Below average standard of living at marriage	0.083	(0.068)	−0.055	(0.049)	0.122	(0.134)
Greater contribution at marriage	0.137	(0.093)	0.124[**]	(0.058)	0.163	(0.144)
Own family wealthier	−0.239[**]	(0.095)	0.041	(0.057)	0.411[***]	(0.148)
Spouse's family wealthier	−0.070	(0.073)	−0.114[**]	(0.053)	−0.141	(0.141)
Constant	0.225	(0.147)	0.119	(0.107)	0.306	(0.291)
lnSigma	−0.611	(0.068)	−0.660	(0.044)	−0.579	(0.114)
N	345		680		124	
Wald Chi2	15.25		29.02[***]		19.43[**]	

[*] Significance at the 10% level.
[**] Significance at the 5% level.
[***] Significance at the 1% level.

4.3. Income groups

To explore whether the factors in Model 2 that are associated with MDP vary by a respondent's wealth, we estimate the model using Vietnamese enumerator-assessed wealth groups (below, at, and above the average commune wealth). We expect this externally assessed categorical variable to be more objective than self-reported income and more consistent as enumerators applied more common valuations across households to in-kind income and consumption of household crops and livestock, often a large component of farming income and wealth. In Table 5 we continue to restrict our predictors to historical measures of wealth and exogenous factors, and divide our sample by wealth group. The remaining standard of living and wealth measures are at the respondent's time of marriage, exogenous to current MDP.

Table 5's results suggest that there are different factors driving MDP by income group. Catholicism, one of the strongest predictors of MDP, is only significant for middle-income groups. Education likewise matters only for respondents of average wealth in the commune, and the impact of having more than a primary school education is relatively strong. These results may reflect the overall lower and less varied educational experiences in the poorest third of respondents. Being female, however, was significantly associated with an approximately .12 unit higher MDP for women in households of below average commune wealth. The coefficient was even larger for women in households of above average wealth, and just outside the 10 per cent significance threshold. Reference levels matter for all income groups. For households both below and above the average commune wealth, having a higher standard of living at the time of marriage relative to their current situation accounted for the largest single increment of measured MDP: lower by 0.44 units and higher by 0.68 units, respectively. The respondent's wealth relative to their spouse's at the time of marriage was significant across all income groups, though the importance of this reference measure was again much larger for those households above and below the commune average, than for those in the middle. The strong findings with respect to relative spousal contributions and wealth levels at marriage suggest that MDP may differ among spouses, which we examine in the next section.

4.4. Intra-household findings

In addition to having gender disaggregated social preference data, by interviewing spouses separately we are able to uniquely examine positionality within a household. Our data offer some initial insights into two questions. The first is simply whether spouses are more likely to have similar positional tendencies than men and women from different households. The second question is whether intra-household positional accord is related to the distribution of decision-making authority to wives and across decision domains.

These questions are of interest because decision-making authority over choices that affect household resource flows is a valuable right. If spousal preferences are the same and resource constraints are the same (i.e., a unitary household model), it does not matter who holds these valuable decision-making rights. But a body of evidence suggests that households do not fully pool income (e.g., Hoddinott and Haddad, 1995; Lundberg, Pollak & Wales, 1997; Duflo and Udry, 2004), suggesting that husband and wife constraints are not the same. Our analysis examines whether spousal social preferences are homogeneous, and adds to a small literature on whether the assumption of common spousal preferences that underlies the unitary household model is also unsound (Fletschner, Anderson, & Cullen, 2010). Challenges to the unitary model have given rise to cooperative and non-cooperative bargaining models that offer alternative characterizations of intra-household decision-making (see McElroy and Horney, 1981; Manser and Brown, 1980), or non-cooperation within marriage (Lundberg and Pollak, 1993, 1994; Kanbur and Haddad, 1994; Konrad and Lommerud, 2000; Chen and Woolley, 2001).

While much of the empirical work in development economics on intra-household decision-making has focused on the resource allocation implications of decision-making authority, a considerable literature has also been concerned with identifying predictors of bargaining power, including women's financial assets (Deere and Doss, 2006; Doss, 2003, 2006, 2013; Quisumbing, 2003), the value of their outside options (Rubalcava and Thomas, 2000) or their political assets (Chattopadhyay and Duflo, 2004). One might theorize that spousal accord over relative position, or the absence of accord, could similarly affect the distribution of decision-making authority. For example, assuming that authority defaults to the husband, if he is positional and his wife is not, he might be less inclined to divest decision-making authority in general, or at least over positional goods.

Our survey sampling method allows us to compare husband's and wife's responses within individual households. We compare the MDP of 505 couples to examine intra-household patterns. A two-category cross tabulation in Table 6 which partitions spouses who are not positional (as measured by an MDP of $\gamma < 0$) from

Table 6
Husband MDP * wife MDP cross tabulation.

			Wife MDP		
			$\gamma < 0$	$\gamma > 0$	Total
Husband MDP	$\gamma < 0$	Count	69	118	187
		% of total	13.7%	23.4%	37.0%
	$\gamma > 0$	Count	88	230	318
		% of total	17.4%	45.5%	63.0%
	Total	Count	157	348	505
		% of total	31.1%	68.9%	100.0%

Chi square = 4.678 (p = 0.031).

spouses that show some concern for relative position (as measured by an MDP of $\gamma > 0$) has a chi square significance at the 95 per cent level, suggesting that a husband and wife's MDP are not independent. In 69 couples (13.7%) both the husband and wife were insensitive to relative social position ($\gamma < 0$, $\gamma < 0$), in 45.5 per cent of couples both husband and wife showed some degree of concern for social position though to varying degrees ($\gamma > 0$, $\gamma > 0$), and in 40.8 per cent of couples, either the husband or the wife was concerned about relative social position while their spouse was not ($\gamma > 0$, $\gamma < 0$ or $\gamma < 0$, $\gamma > 0$).

The answer to our first question – whether spouses are more likely to have similar positional tendencies than men and women from different households – is yes. If the men and women in our sample were to be randomly matched, almost 55% would be expected to have similar MDPs. However, in contrast, 61% of spouses are observed to have similar MDPs, statistically significantly more than are expected among the hypothetical random pairings ($p < 0.01$). Of the 299 couples with similar MDPs, over 77 per cent are sensitive to relative income. It may be that similar social preferences matter more for individuals who are more positional than for individuals who are not.

Though we cannot directly observe whether MDP accord affects intra-household decision-making authority, we can examine the association between spousal accord and wives' decision making authority, and motivate whether spousal accord appears to be more or less important across decision domains that could be classified as involving positional goods. Our survey asked husbands and wives to each allocate ten beans to indicate relative decision-making authority within the couple across five questions.[12] From the literature that characterizes the features of goods most likely to be positional – visibility, income elasticity, and supply elasticity – we would a priori predict livelihood and major purchasing decisions as being more positional than decisions over the studies and jobs undertaken by the children (Solnick and Hemenway, 1998, 2005; Pagano, 1999, 2007; Heffetz, 2004; Carlsson, Johansson-Stenman, & Martinsson, 2007b). Assuming that authority defaults to the husband we first examine the hypothesis that wives in households with similar spousal MDPs more often get a share of decision-making authority across all decisions than wives in households with different spousal MDPs. We then look at whether wives across all households are more likely to get a share of authority over decisions involving less positional outcomes.

Table 7 presents the overall percentage of couples for which the wife has some or all authority in decision making (defined as both partners acknowledging that either the wife makes the decisions

Table 7
Households in which wife has some or all decision authority.

Some decision authority over	MDP similar	MDP different	Overall
Changing economic activity[***]	41.9%	34.8%	37.6%
Expensive furniture[***]	41.9%	34.4%	37.4%
Children's studies	50.2%	53.6%	52.3%
Children's types of jobs for the family[**]	47.8%	42.4%	44.6%
Number of kids to have[a,***]	74.3%	62.3%	67.1%
Total	N = 203	N = 302	N = 505

[a] N = 202 for couples responding to the "number of kids" question.
*Significant difference between percentage of MDP similar and MDP different groups at the 10% level.
[**] Significant difference between percentage of MDP similar and MDP different groups at the 5% level.
[***] Significant difference between percentage of MDP similar and MDP different groups at the 1% level.

in that domain or that the wife and husband share decision making authority). Having a similar MDP was defined as a household where the husband's and wife's MDP measures were within one interval of one another (on the five interval scale), regardless of whether MDP is low or high.

Responses by the couples surveyed indicate that women have significantly more decision making authority in households with similar MDPs than in households with different MDPs across three of the five decision domains.

For decisions over economic livelihood activities or buying expensive furniture, which involve visible and possibly highly income elastic goods, women have shared or complete authority in only 37.6 and 37.4 per cent of households. This contrasts with decisions pertaining to children's studies or jobs, in which women have some or complete decision-making authority in 52.3 per cent and 44.6 per cent of households, respectively. Women have the highest levels of authority in decisions about the number of children the couple has, with 67.1 per cent of households reporting that women have some or complete authority over the decision.

An examination of the role of accord or discord in MDP reveals that in every decision domain except children's studies, the fraction of households in which women have decision making authority, given that the husband and wife care about positionality at similar levels, is statistically significantly greater than in those with different MDPs. Where husband and wife have similar MDPs, 5–12 per cent more households report women having some or complete decision making authority relative to households with different MDPs. Pagano (1999) contends that wealth, prestige, and power are positional. Decision-making authority directs valuable resources and hence affects one's stock of all three, suggesting that intra-household decision making itself may be a positional good.

5. Conclusion

Our results confirm previous findings that for the majority of individuals, income is indeed positional. Most people, across income groups, care about relative position, and 66 per cent report a willingness to forego absolute income to maintain an above average position within their community (compared to 60 per cent in Carlsson et al.). Consistent with theories suggesting that value is assigned to gains and losses from a reference level (Tversky and Kahneman, 1991), we find that one's positionality is related to changes from their own relative status, and their wealth relative to their spouse, at the time of marriage, particularly for individuals assessed as currently having below or above average commune wealth, rather than those having average wealth.

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[12] Our survey questions were: (1) In your household, who decides whether or not you can start new, or expand your current economic activities? (2) In your family, who makes decisions about buying expensive furniture? (3) Who makes decisions about children's studies? (4) Who makes decisions about the types of job your children do for the family? (5) Who makes decisions about how many kids you and your spouse have?

Annual household income.[a]

	VND (millions)	USD[b]
Mean	23.7	1474
Median	19.5	1212
Standard Deviation	18.2	1132
Range	1.8–250	112–15,543

[a] Reported individually (for couple households, husband and wife responses both included here).

[b] 3/15/08 exchange rate of 16,084 VND/1 USD.

Number of respondents per income and gender.

		Male	Female	Total
HH wealth compared	Below	151	206	357
to commune avg.	Average	302	379	681
	Above	60	67	127

Contrary to earlier results in Vietnam, our findings suggest that individual preferences for relative position vary across gender in the Ha Tinh province of Vietnam. Spousal social preferences are not homogenous, though women in households where spousal positionality is closer exercise a greater share of decision making authority – whether that accord clusters around a lack of concern or shared concern for relative position within the couple. These findings have implications for development interventions that have differential economic effects across a community, and that do not differentiate among individuals within a household.

Acknowledgements

Appendix A. Baseline characteristics of sample

Household and farm characteristics	Mean	Median	Range
How much land does your family have? (m^2)	799.35	551.00	5885
Size of household	4.81	5	9
Age	38	39	38
	Per cent YES		
Primary School	35		
More than primary school	27		
Own family wealthier	24		
Spouse's family wealthier	28		
Greater contribution of assets to marriage	25		
Catholic	25		
Above average standard of living at marriage	5		
Member of Communist Party	7		
Parent members of Communist Party	25		

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