

Dual-Income Marital Dyads and Mutually Discrepant Economic Versus Personal Information: An Exploratory Investigation

Varsha Singh · Thomas Kalliath · Parveen Kalliath

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Abstract There is an assumption in economic decision-making literature that decision-making in household follows a single set of preferences. The present study is aimed at testing this assumption by investigating 28 dual-income couples (drawn from four occupational sectors namely, IT, public service, self-employment and social-service) and separately eliciting two types of (economic and personal) objective information from dyad members. Effects of key demographic variables (marital role, age, occupation & level of education) suggest that only marital role had a significant influence on discrepancy found in reported information. One way ANOVA showed that marital role had a significant effect on discrepancy observed in personal information rather than for discrepancy in economic information. Implications of the results for social science research methods and in terms of singular preference for a household are briefly discussed.

Keywords Marital dyad · Household decision making · Discrepant information · Self reported-measures · Research methodology

V. Singh (✉)

Department of Humanities & Social Sciences,
Indian Institute of Technology, Bombay,
Powai,
Mumbai 400076, India
e-mail: varsha.singh@iitb.ac.in

T. Kalliath

School of Management, Marketing and International Business,
Australian National University,
Canberra, ACT 0200, Australia

P. Kalliath

School of Social Work, Australian Catholic University,
223 Anthill Road,
Watson, ACT, Australia

Introduction

One of the widely accepted assumption in household decision-making studies, especially decisions concerning resource allocation and economic decisions is that a household (comprising husband and wife or a dyad) has a single set of preference (Bateman and Munro 2005). This assumption is in line with Samuelson's (1956) single utility function for a household or a family. However, dissimilarity in judgment and in decision making processes of husbands and wives has been reported (Menasco and Currey 1989). Theoretically, such reports of disjoint views held by members of marital dyad become important because the assumption of singularity in utility and preference of a family as a household decision making unit is weakened. In terms of application, such studies become more crucial in social sciences, particularly those aimed at understanding socio-economic phenomenon such as consumer decision making, which tend to rely on information provided by a single member of a marital dyad. For instance, due to dissimilarity being observed within members of marital dyad, the assumption of husband and wife as a family being a unit of analysis has been challenged (Blau and Ferber 1986). In fact, it is recommendation that investigation of decision-making within a household should use the dyad or both the members as a unit of analysis, rather than considering one member to be representative of the family (Poelmans 2001).

Therefore, apart from testing the assumption of singularity in attitudes of a marital dyad, this investigation will add to literature on social science methods aimed at understanding socio-economic behavior where reliance is on information given by members of marital dyad. For instance, more recently, a study of decision making styles in India interviewed shoppers and found that marital status is

related to price consciousness (Patel 2008) but failed to include the spouse and test veracity of the responses given by the participant. Review of the extant literature suggests that there are more studies investigating discrepancy in personal or non-economic decision-making which are focused on exposing self-serving biases behind such discrepancies. For example, Kamo (2000) noted discrepancies in reporting the division of household work by members of the dyad, and suggested the operation of a self-serving bias which might have inflated estimates in favor of the reporting member. Similar biases were reported by Lee and Waite (2005) who observed that estimates of time spent on housework differed substantially among husbands and wives. Becker et al. (2006) found discrepancy in decision-making power reported by the dyad such that wives under-reported their decision making power. In a study of aggression reported by couple, both the dyad members reported lower level of aggression for themselves than that attributed to them by their spouse and this tendency was stronger for husbands (Simpson and Christensen 2005). It is to be noted that there is no study, to our knowledge, that systematically explores the issue of discrepancy within a marital dyad in India, either from the perspective of testing assumption of singularity in preference of a household, or from the perspective of refining literature on methods of social science studies.

As mentioned earlier, numerous studies have aimed at uncovering the inherent differences in perception of the two members of a marital dyad. Almost all the variables explored (e.g. autonomy in decision making, aggression, house hold workload) in such studies require a certain degree of subjectivity in their judgments as they are aimed at exposing the self-serving bias. Such studies are aimed at bringing out divergent judgment of members of marital dyads to bring out underlying self-serving bias in the information elicited. Evidence for whether there is similar kind of divergence in views of both the members of a marital dyad when the information elicited is objective (i.e. relatively immune to self-serving bias that tends to influence subjective information elicited from the marital dyad), is not that well-established as yet. A divergence in objective information possessed and provided by members of a marital dyad will truly bring out the underlying divergence which is probably inherent in the thinking of the two members of marital dyad. Thus, the current study is aimed at exploring discrepancy among marital dyad when they report factual or objective information about their economical and personal life.

The most fundamental and readily available economic information to a marital dyad is their and their spouse's income (salary). Similarly, the most basic and commonly available personal information to a couple is the duration or length of their marriage. This basic information is also

important because it is common practice to elicit these two types of information as a part of demographic profile drawn for almost all the fields of social science as well as for life science studies. However, very few researchers have investigated observed discrepancies in information of economic and personal nature reported by the dyad. Accordingly, we found very few findings that systematically showed discrepancies in the reporting of objective information. For instance, Zagorsky (2003) noted in his study that 50% of couples showed more than 10% discrepancy in their reported family income with husbands over-reporting their income and the wives over-reporting their debt. The few studies that we have come across have reported a discrepancy but the observed mis-reporting among couples was pointed out more as a cautionary advice in terms of methodological refinement of the studies investigating other subjective factors related to the dyad. For instance, in a cross-national study it was found that basing survey results on the views of a single member of a marital dyad could lead to unreliable findings (Peterson et al. 1988). It also indicates that mis-reporting crucial information by a marital dyad is not a phenomenon restricted to a particular nation or culture even though it has been widely documented in some cultures (e.g. western) and rarely explored in others (Asian).

For example, assessments of women's autonomy in South Asian countries like India, Pakistan, Malaysia, Philippines, and Thailand was found to be biased as it was dependent on whether the husband or the wife was the respondent (Ghuman et al. 2006). Furthermore, it has been felt that decision making aspects specific to Indian context are largely under-investigated especially in economic decision making (Batabyal 2001). It is hoped that besides contributing to the literature on discrepancy in judgment held by a marital dyad which is looked upon as a household decision-making unit, the present study will also compare the discrepancy observed in personal versus economic information in a cultural setting such as India. Comparison of divergent information regarding personal (non-economical) and economical information is of research interest mainly because, on one hand India is seen as a rapidly rising consumerist economy, but at the same time, a marital dyad in India is also a part of traditional family set up which is characteristic of a collectivist nation. Thus, comparison of discrepancy observed in the marital dyad's judgment about personal versus economical aspect of their lives could be of importance. As supported by previous literature, discrepancies have been found in the information provided by the members in a marital dyad which has been explained by factors such as desirability and self-serving bias. But whether such discrepancies exist in case of objective information such as income (salary) of self and of spouse, and the duration or length of a legal marriage,

which is presumably free of subjective valuation, is of utmost importance in understanding discrepant judgments and valuation of the dyad. Findings of the current study will make a theoretical contribution to the scant literature on disjoint views of a marital dyad which goes against the established concept of single utility within household decision making. It will also add to the literature on theoretical refinement of research methodology employed in studies across various disciplines. Thus the aims of this exploratory study was two fold: (1) to explore the discrepancies shown by the participants (member of marital dyad) according to their role in a dyad (husband or wife) and (2) to compare the nature (direction) of discrepancy for both economic and personal information provided by the dyad.

More specifically, in order to operationalize this research problem, we investigated, whether one member over-rates (and over-reports) one type of factual information (personal versus economic) while under-rates (and under-reports) another type, and if both the members of the dyad show similar or dissimilar trends for over-rating or under-rating factual information about personal and economic aspect of their lives. As mentioned earlier, a single set of preference for a marital dyad implies that the dyad uses a single or the same valuation system to rate their choices. When indicating their preference for a choice, the dyad should show similarity in their individual responses. A disjoint view will indicate that one member of the dyad has either over-rated or under-rated an option. This in turn will indicate usage of different valuation system by the dyadic members. Usage of a different valuation system weakens the assumption of single preference of a household comprising of a marital dyad. This assumption is tested in the current study by employing marital dyads and comparing their responses to queries that require information from both the member and which is assumed to be objective and readily available to both the members of a marital dyad.

The study also explored key demographic variables such as age, for reasons that an older couple married for a longer duration might show higher consistency in reported information as compared to a younger couple, married for a shorter duration. Four types of occupational groups were chosen to draw the sample from namely: Information technology (IT), government service, and self-employment, and social work/social services. The assumption behind selecting these four occupational settings was to explore if they have any potential influences on discrepancy reported, especially since the income (salary) ranges for the four groups are known to be quite different. For example, IT and self-employment is a relatively high-income occupation as compared to government and social service/social work as an occupation. As compared to social-work/social service and self-employment, income (salary) in IT and government sector is relatively more

fixed and clearly defined. Level of education of the marital dyad is also known to influence the obtained discrepancy in information reported by the couple (Becker et al. 2006). Thus possible contributors to the discrepancy in reported information have been included into the study. One of the other merits of the study was the interview method instead of the commonly administered survey method. The interview questions eliciting economic and personal information were the same for the couple, administered simultaneously but separately. Since it is an exploratory study, and the first to our knowledge to systematically explore this facet taking into account possible contributors to the phenomenon of discrepant information provided by a marital dyad, we form no specific hypothesis about the study.

Method

Participants

The present study was carried out at a premier management school in India. Twenty eight dual-income couples with seven couples representing each of the four occupational groups namely; Information Technology (IT), Public Service, Self Employment (entrepreneurs) and the Social Services (social workers), were recruited for the study. All the participants were residents of Bangalore, a city in Southern India. The participants were from varied age groups, level of education, and duration of marriage. Please refer to Table 1 in “Appendix” for descriptive statistics of the sample.

Measures

A structured interview schedule was employed to elicit responses for desired information from the participants about their age, current income, spouse’s income, occupation, level of education and duration of marriage

Data Recording and Transcription

A digital voice recorder was used for recording each interview. These were stored as individual audio file which was used for transcribing the data in a verbatim record onto a Microsoft word document. The male and female interviewers themselves transcribed the audio data into word format to maintain consistency in interviewing, data recording and transcribing. Information about the variables of interest (age, current income, occupation and education and duration of marriage) was extracted from the transcription. Responses to these questions were entered into Statistical Package for Social Sciences (SPSS version 11.0) for further analysis.

Procedure

Participants (couple) were invited to the institute at a scheduled date and time. Each couple was provided with information about the purpose of the study and any doubts that they had were clarified. Informed consent was obtained for participation and audio recording the interview, prior to the interview session. In order to avoid mutual discussion or non-verbal influences of the spouse, interview of the male participant (husband) and female participant (wife) were taken simultaneously but in separate rooms. Furthermore, in order to avoid possible confounding effect of gender of the interviewer, male participants were interviewed by a male interviewer and female participants were interviewed by a female interviewer in separate rooms. Each participant's interview lasted for approximately 45 min. It is to be noted that the data collected for the current study is a part of a larger study exploring stress and health of Indian dual income couples. Entire interview session was recorded with the help of a recorder fixed on a table in between the participant and the interviewer, ensuring that the quality of the voice recorded will have maximum clarity. During the interview, participants were discouraged from attending to the cell phone and from using vernacular language. After the interview was over, the participants were debriefed, thanked and paid for their participant in the study.

Data coding, Variables and Statistical Analysis

Each participant's verbal response to questions about age, self and spouse' income, occupation, education and duration of marriage was recorded in the voice recorded and each audio file was transferred to a computer. The audio taped interview of each participant was transcribed verbatim into a word document using Microsoft word. Responses regarding the variables of interest (age, self and spouse income, occupation, education and duration of marriage) were extracted from the transcribed data. The responses were entered in Statistical Package for Social Sciences (SPSS version 11.0) for being coded as variables of interest. Independent variables were coded in the following way: role of the participant (husband = H or wife = W), age of the participant (median-based cutoff: less than 36 years of age=0; more than 36 years of age=1), occupation group the participant belonged to (IT = I; government = G; self-employed = S; social work = SW), education level of the participant (below bachelor level=0; up to or above masters level=1). Dependent variables of interest were discrepancy in economic information and personal information about the dual-income couple. Discrepancy in the economic information was assessed by

calculating the difference in income (in rupees) reported by self and by spouse. Similarly, discrepancy in personal information was assessed by calculating the difference in duration of marriage reported by self and by spouse (in years). It is to be noted that elicited information was assumed to be identical and hence any difference in values provided by the two members of a dyad were taken as a sign of discrepancy. Additionally, obtained value of discrepancy was coded to indicate direction of discrepancy to explore if the members over-rated or under rated the information. For example, a positive difference between income reported by self and by spouse was coded as '1' indicating that there is a discrepancy such that either the member has over-rated or the spouse has under-rated the information provided. Similarly, a negative difference between income reported by self and by spouse was coded as '-1' where a negative difference indicated either that the value reported by self is under-rated or that the value reported by the spouse is over-rated. When there was no difference in the income reported by self and by spouse, it was coded as '0' and no difference indicated a perfect agreement over the values reported by self and by spouse. The same procedure was followed for personal information, i.e. a positive difference between duration of marriage reported by self and by spouse was coded as '1', a negative difference between duration of marriage reported by self and by spouse was coded as '-1', and when there was no difference in the duration reported by self and by spouse, it was coded as '0'. Thus, discrepancies in economic and personal information reported by self and by spouse were the dependent variables of interest in the current study.

Results

Multivariate analysis was employed to explore effect of independent variables, namely: marital role, age, occupation group and education group on the dependent variables of interest i.e. discrepancy in economic information (income) reported by self and spouse and discrepancy in personal information i.e. (duration of marriage). Possible interaction between marital role, age, occupation and education were taken into account. The results indicate that none of the factors affected the dependent variables. Marital role of the participant failed to reach an acceptable level of statistical significance ($p=.06$). This indicates that age group, occupation and education of the participant had no influence on discrepancies in economic and personal information reported by self and by spouse. To further explore the effect of marital role (husband or wife) on the dependent variables, we conducted a one way ANOVA which showed significant effect of marital role on discrepancy in personal information, i.e. duration of marriage

($F(1,55)=7.01, p=.011$) rather than for discrepancy in economic information, i.e. in reported income. It was interesting to note that the two groups of participants based on their role in a marital dyad (i.e. husband or wife) showed opposite direction of discrepancies for economic and for personal information. In case of a participant being a 'husband', more over-reporting of income by self or under-reporting by the wife was observed. In case where the participant was a 'wife', an under-reporting of income by the wife or an over-reporting of income by the husband was observed (please refer to Fig. 1). An opposite trend was seen in case of direction of discrepancy reported for personal information, i.e. duration of marriage. In case of the participant being a 'husband', duration of their marriage was under-reported by them whereas their spouses over-reported the duration. In case of the participant being a 'wife', there was over-reporting of the duration of their marriage by the self or the spouse under-reported the duration of their marriage (please refer to Fig. 2). It can also be seen that role of the participant was significant for discrepancy in personal information, i.e. duration of marriage rather than for discrepancy in economic information, i.e. income. It is evident from the graph that the difference between husband and wife is sharper for discrepancy in personal information i.e. reported duration of marriage. While interpreting the results it is important to take note that the study was aimed at finding discrepancy among the members of a marital dyad and not to establish accuracy of their self-reported information.

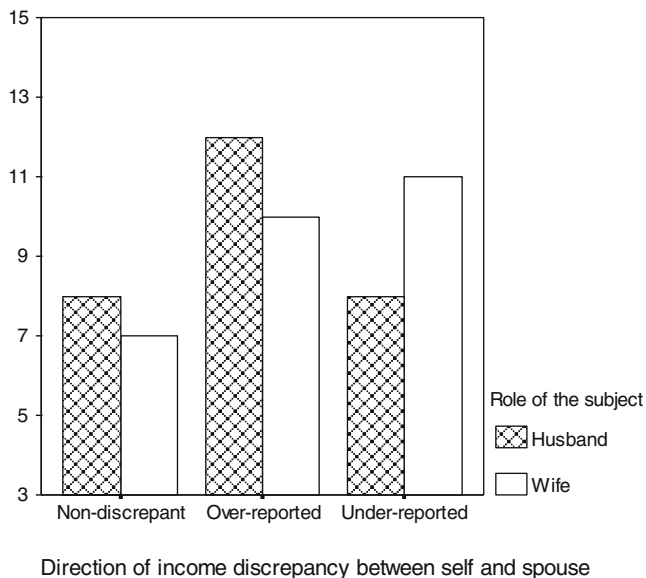


Fig. 1 Showing role of the participant (husband or wife) and direction of discrepancy in economic information (income) reported by self and by spouse

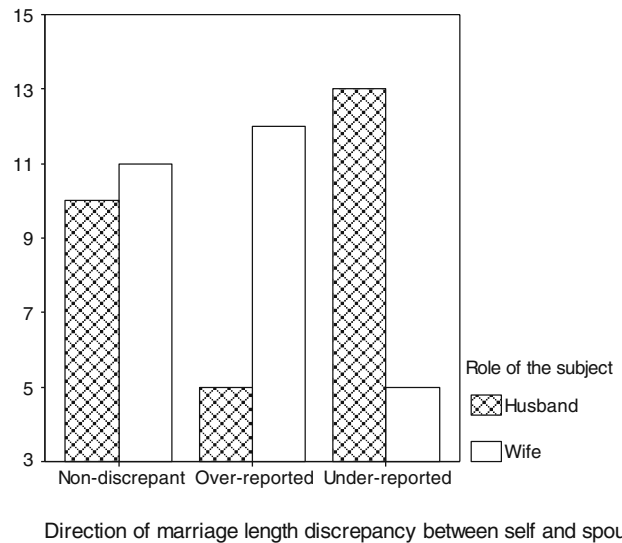


Fig. 2 Showing role of the participant (husband or wife) and direction of discrepancy in personal information (duration/length of marriage) reported by self and by spouse

Discussion

This study was an attempt to explore discrepancy in identical information which was provided by both the members of a marital dyad and was about economic and personal aspects of their lives. We also explored demographic variables that could contribute to the discrepancy obtained in the information provided. The broader aim was to explore the underlying valuation process and test the assumption of homogeneity among members of a marital dyad. This aim was accomplished by comparing information provided by the members of the dyad for any distortion of factual or objective information reported by both the members of the dyad. Economic information, i.e. income of self and of spouse, and personal information i.e. duration of marriage was objective information (i.e. free of subjective bias) assumed to be available and identical for members of dyad. It was found that except for the marital role of the participant in a dyad, none of the demographic factors such as age, education and occupation had any influence on the discrepancy. Furthermore, we compared the effect of the role of participant and its impact on discrepancy in economic versus personal information. It was found that participant's role had a significant impact on discrepancy in personal information, i.e. duration of marriage, but not for discrepancy in economic information, i.e. information about income.

To our knowledge no other study has systematically demonstrated discrepancy in reported income in marital dyads drawn from an Indian sample. In absence of a comparable study on Indian sample, we look towards cross-national studies of similar nature. In a panel survey of German population it was observed that, depending on the earning capacity of the member, men tend to overestimate and women tend to under-

estimate the minimum amount needed for their family's welfare (Plug and Van Praag 1998). The current results show that a discrepancy between husband and wife is observed for factual information such as information about current income, which is less subjective than information about desired income. Such findings are significant because they indicate that members of marital dyad possess disjoint views of their and their spouses' income even when there seems no scope or no self-serving need for such distortions. The results are in line with other literature such as an analysis of the US national survey carried out by Zagorsky (2003) where couples were chosen randomly from the US addresses. The survey gave insight into how husbands and wives in the US respond to elicited information which is identical in nature. It was found that majority of the couples had a drastically different perception of their family's joint income with male participants or husbands' over-reported total family income and assets than the female participants. It was concluded that there is a tendency to over-rate one's own income and under-rate spouses' income.

The present study asked the participants about their own income and that of their spouse which enabled a direct comparison between incomes reported by self and by spouse for both husbands and wives. It was found that in the case of husbands, the salaries were either over-reported by themselves or under-reported by their spouses and the opposite was true for the wives. It is possible that the husband's over-estimated their income due over-valuation of their contribution and that the wives under-estimated their income due to their under-valuation of their contribution to their joint finances. In either case, the current study demonstrates that there is a discrepancy in income reported by self and by spouse. An interesting finding related to discrepancy in economic information in the current study was in case of wives, where the income was either under-reported by themselves or over-reported by their spouses. This result goes against the Zagorsky (2003) findings according to which income for self is over-reported. Under-reporting of income by 'wife' in the current study could be explained as either truly under-valuing her contribution to the family finance or due to cultural reasons such as modesty. At the same time, husband's over-reporting their spouses' income could be result of truly over-valuing her contribution to the joint finance or adhering to the newly emerging modern Indian male who appreciates the wife's contribution. The latter is favored as an explanation for the husband's over-reporting their spouse's income because the male participants in the study seemed extremely supportive towards their spouses, which could further be attributed to social-desirability as coming to a premier institute for an interview could have had an effect on the participants. Though this finding warrants further careful exploration, it can be speculated that India's

conservative (traditional) gender stereotypes are slowing getting eroded due to a rising consumerist culture where double income, i.e. both husband and wife earning to support an urban life style, has gained importance.

Another key finding was the comparison between discrepancies observed for economic versus personal information, where it was found that the role of the participant (husband or wife) affected discrepancy for personal information, i.e. duration of marriage more than it influenced discrepancy in economic information i.e. of the income. The results showed that husbands tend to either under-report duration of marriage or their spouses have over-reported duration of their marriage. It indicates that husband's tend to under-value the time-span spent in the role of a husband or that the women tend to over-value the time spent in their role as a wife. Further studies are needed to delineate these two assumptions. Though this aspect needs further exploration, it is possible that information regarding personal life still follows the culturally ingrained gender stereotypes, where women are groomed to be more concerned with getting married, setting up a house, and starting a family as compared to men who are groomed towards gaining right qualification and get financial stability through secured employment.

The findings demonstrate not only disjoint view held by the marital dyad but also how the views are distorted in opposite direction when distortion in economic information is compared to distortion seen in personal information. The findings suggest that there are fundamental ways in which two people in a marital dyad differ and hold disjoint views about identical information in absence of any known self-serving bias for holding or expressing such disjoint views. The findings add to emerging theoretical literature that challenges assumptions of singular preference of a household in classical economic decision making theories. In case of the current study, the findings suggests that members of a marital dyad assumed to have a singular utility function, might hold very disjoint views on identical and factual information and in absence of any self-serving bias.

Over-all the study achieved its aim of demonstrating discrepancy in information about objective (identical) information of economic (income) and personal nature (duration of marriage), provided by a marital dyad, considered to be a primary and singular unit of household decision making. As stated earlier, discrepant information suggests a dissimilar valuation system held by the dyad members. This goes against the standard model of economic decision making of a household, which assumes both husband and wife as family or as an entity holding a singular (similar) preference. Lastly, the implication of the findings suggest that a cautionary measure should be taken by social science researchers who base their research findings on responses

given by a one individual of a household considering it representative of the entire household.

Appendix

Table 1 Table showing descriptive statistics for the current sample ($n=56$) according to the variables of interest, their categories and sub categories

Variable	Category	Sub category (n)	Mean	SD
Age (in years)	Dyad role	Husband (28)	39.75	07.28
		Wife (28)	34.71	07.71
	Occupation	IT sector (7)	31.36	06.57
		Government sector (7)	42.07	03.97
		Self-employed sector (7)	38.21	09.08
Difference in duration of marriage reported by self and by spouse (in years)	Dyad role	Husband	-00.40	01.40
		Wife	00.40	01.40
	Occupation	IT sector	00.00	01.65
		Government sector	00.00	01.11
Difference in salary reported by self and by spouse (in rupees)	Dyad role	Husband	11839.29	30939.32
		Wife	5678.57	20919.69
	Occupation	IT sector	18964.29	42967.55
		Government sector	1500.00	5890.02
		Self-employed sector	14285.71	27805.45
Social work sector	285.71	2181.34		

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