The Evolution of Male and Female Family Size Preferences within Relationships

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Abstract

Researchers have examined the relative influence of husbands' and wives' fertility preferences on fertility behavior in a variety of contexts. Such studies, however, largely treat fertility preferences, and family size preferences in particular, as fixed individual traits despite existing theoretical and empirical arguments that suggest preferences are moving targets that may be jointly developed within relationships. Indeed, very little is known about how partners influence each other's preferences over the course of a relationship. This paper uses six waves of closely-spaced couple-level data from southern Malawi and multilevel longitudinal models to examine how family size preferences change over time within couples before and after marriage. Throughout, we pay particular attention to gender and the relative influence of male and female partners' preferences on one another.

Introduction

Fertility preferences have long been of interest to demographers and others seeking to understand fertility trends and patterns of family formation. Researchers have often attempted to identify the predictors of preferences and the relationship between preferences and behavior. Historically, research on fertility preferences has focused on women's preferences and in particular the relationship between a woman's socio-demographic characteristics, her report of her partner's characteristics, and her desired family size (Voas 2003; Greene and Biddlecom 2000). However, a number of researchers have made powerful theoretical and empirical arguments that the view of one partner cannot be assumed to represent the view of the other (Coombs and Fernandez 1978; Coombs and Chang 1981; Thomson and Hoem 1998; Becker 1996). Subsequent research has clearly shown that male partners' preferences matter—in some contexts more than females'—for fertility outcomes (Bankole 1995; Dodoo 1993; Ezeh 1993; Ezeh et al. 1996; Adamchack and Adebayo 1987;

Isiugo-Abanihe 1994; Frost and Dodoo 2009; Mason and Taj 1987; Ngom 1997; Thomson 1997; Thomson et al. 1990). These studies focus on preferences within marriage and do not fully consider how partners influence each other's preferences over the course of a relationship. Without knowing how preferences change prospectively, and whose preferences change in particular, studies of the relative influence of one partner's preferences over the other's on behavior may be misspecified.

In this paper, we use couple-level panel data from Malawi to examine how family size preferences change over a period of 2 years within couples both before and after marriage. Throughout, we pay particular attention to gender and the relative influence of male and female partners' preferences on one another.

Couple preferences and outcomes

There is a body of research on couples' preferences that seeks to examine how discordant preferences are translated into fertility outcomes such as births or contraceptive use. Voas (2003) argued that spousal disagreement over fertility preferences can lead to fertility that is lower or higher, on average, than would be expected based on mean preferences. Different societal norms may favor higher or lower preferences or the preferences of one gender over the other (Voas 2003; Mason and Smith 2000).

There has been considerable interest in the relative influence of preferences on behavior in sub-Saharan Africa where fertility remains high and contraceptive use low. Studies from Nigeria and Kenya have found that both partners' preferences are important predictors of behavior (Bankole 1995; Dodoo 1998). When partners disagree, their fertility behavior falls somewhere between the two preferences. There is also evidence that men's preferences carry more influence when the couple has few children and women's preferences dominate when their parity is already high (Bankole 1995). Additionally, while some studies have found that men's preferences are better predictors of contraceptive use than women's (Dodoo 1998; Dodoo and van Landewijk 1996; Bankole and Singh 1998), others have found just the opposite (Maharaj and Cleland 2005; Dodoo 1993).

Across sub-Saharan Africa, husbands' and wives' ideal family sizes are highly discrepant and men, on average, report higher figures. In Malawi, the difference is particularly small with men wanting only 0.2 children more than women (Bankole and Singh 1998). Nonetheless, there is considerable disagreement among married Malawian couples. In the 1992 Malawi Demographic and Health Survey, the male partner reported wanting at least two more children than his female partner in approximately one quarter of couples and almost as frequently the female partner reported wanting at least two children more than her partner (Bankole and Singh 1998).

Moving-targets

Early microeconomic studies of fertility relied on the assumption that fertility preferences were formed early in life and then stayed relatively fixed from marriage onward (Ryder 1973; Udry 1983). Decades ago, demographers challenged the assumption of an *a priori* set of fertility preferences and proposed more dynamic models of reproduction. They argued that childbearing decisions were more likely to develop and change over time, based on actual childbearing experience and life situation (Udry 1983; Bulatao 1981; Hout 1978; Namboodiri 1972; Yamaguchi and Ferguson 1995). Lee (1980) described reproductive goals as akin to a "moving-target" that changed over time and Johnson-Hanks (2004) argued that they are contingent on changing life circumstances and need not necessarily follow a linear pathway. Indeed, a collection of recent studies using panel data from a variety of contexts has shown that young people, in particular, change their fertility preferences over short periods of time (Kodzi et al. 2010; Rocca et al. 2010).

Most studies of couple preferences focus exclusively on married couples. In doing so, such studies estimate discord at the point of the interview but cannot estimate differences at the beginning of a marriage, much less before a couple got married. There undoubtedly exists some degree of assortative mating—that is, couples coming together because of shared socio-demographic traits that are also predictors of desired family size; however, is it exceedingly common for couples to disagree. Aggregate agreement in ideal family size among men and women in most settings obscures

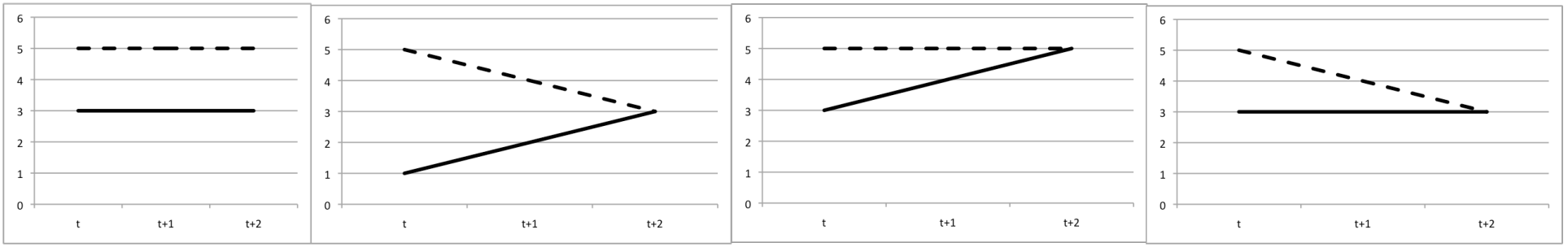
disagreement within couples (Mason and Taj 1987; Mott and Mott 1985; Coombs and Fernandez 1978). Across the globe, spousal reports of desired family size only correspond half the time and in sub-Saharan Africa fewer than half of spouses report preferences within one child of their partner (Becker 1996; Bankole and Singh 1998). Most studies of couple preferences assume—either implicitly or explicitly—that preferences are stable across the relationship. However, preferences and intentions are likely to be negotiated before a couple gets married or early in marriage (Voas 2003; Becker 1996). Indeed, a study from Taiwan found that the length of time a couple had been married was a good predictor of preference concordance, with newer marriages featuring more disagreement (Coombs and Chang 1981). Reports of spousal agreement likely already reflect some degree of preference convergence and therefore suggest higher levels of disagreement when partners first get together.

Based on the existing research, we envision three possible trajectories for partner preferences across a relationship. First, partners' preferences may be autonomously formed and independent of one another even well into a relationship (as suggested by Mott and Mott 1985; Figure 1a). Second, partners may influence each other's preferences towards some middle point (Figure 1b). Under this scenario of reciprocal influence, preferences are moving targets whose slopes tilt towards one another during a relationship. Third, one partner's preferences may be fixed and this partner may influence (actively or passively) the other partner's preference unilaterally toward their own (as suggested by DeRose and Ezeh 2005; Figure 1c and 1d).

In this paper, we examine how the family size preferences of young male and female partners (age 15 to 25) change relative to one another at the beginning of a relationship, when a relationship progresses to marriage, and over the course of a marriage. We additionally consider the role of covariates, in particular the absolute and relative education and age of the partners, in moderating the relationship between partners' preferences.

Figure 1a-d: Partner-trajectories in family size preferences: four theorized models

1a: Independent **1b: Reciprocal influence** **1c and 1d: Unilateral influence**



Data

The study uses data from Tsogolo la Thanzi (TLT)[1], an ongoing panel study of young women and their partners in Balaka, a growing town in southern Malawi. In order to examine changes in fertility preferences dynamically, we use six waves of data, each spaced by approximately four months. The first wave was collected between June and August 2009 and the last between February and April 2010. The female TLT sample was drawn from a complete household listing of young adults aged 15 to 25 living within a 7-kilometer radius of Balaka town. Approximately 1,500 women were randomly selected from this listing and recruited to participate. Respondent-driven sampling was then used to recruit the male partners of the female respondents. At the baseline interview, women were asked to report on their male romantic and sexual partners (up to three). For each ongoing relationship, women were given a token and asked to give the token to their partner and for him to bring it to the research center in order to be interviewed. At each subsequent wave, women were again asked to report on their ongoing relationships and any new partners they may have acquired in the intervening four months. New partners were recruited on a rolling basis and became regular TLT respondents.

All interviews were conducted in private rooms at the TLT research center. Ninety six percent of contacted and eligible women were successfully interviewed at wave 1. In order to ensure that the same respondents were re-interviewed at each wave, a digital photograph was taken of each respondent at baseline. At each subsequent wave, respondents checked in with a receptionist who used the photographs to confirm their identity.

The TLT data allow us to create a rich partner-specific dataset that follows partners over successive waves. Through a separate database of couples, TLT is able to link respondent identification numbers to the responses of a particular partner (since respondents could report on up to three). This enables us to closely follow when relationships form, when they progress to marriage, and when they end.

[1] Tsogolo la Thanzi is a research project designed by Jenny Trinitapoli and Sara Yeatman and funded by grant (R01-HD058366) from the National Institute of Child Health and Human Development

Analytic approach

We will use a longitudinal multilevel model to examine how changes in individual and partnership characteristics relate to the difference between the female and the male partners' family size preference. Let FP_{Fij} and FP_{Mij} represent the fertility preferences (i.e., the ideal number of children) for females and males, respectively, at time *i* (e.g., *i* = 1 to 6 for couples observed at every wave) within couple *j*. The dependent variable of interest is the difference in partner family size preferences, $FP_{Fij} - FP_{Mij}$. Respondents were asked their family size preferences at every interview.

The multilevel model of interest is presented in equations below:

$$FP_{Fij} - FP_{Mij} = \beta_{0j} + \beta_{1j} t_{ij} + r_{ij} \quad (1)$$

$$\beta_{0j} = \gamma_{00} + \sum_{k \in \Omega_0} \gamma_{0k} x_{jk} + u_{0j} \quad (2)$$

$$\beta_{1j} = \gamma_{10} + \sum_{k \in \Omega_1} \gamma_{1k} x_{jk} + u_{0j} \quad (3)$$

Equation 1 represents the level 1 model that examines how differences in couple preferences change over time. More specifically, t_{ij} is a linear time trend variable that equals values of 0 to 5 for *i* = 1 to 6 for couples with complete data and r_{ij} is a random normal error term. Consequently, β_{0j} represents the value of $FP_{Fij} - FP_{Mij}$ for couple *j* during the first wave of data collection and β_{1j} measures how $FP_{Fij} - FP_{Mij}$ changes over time within couple *j*. Equation 2 is the level 2 equation for group intercepts, or the differences in fertility preferences in the first period. In equation 2, γ_{00}

represents the grand mean difference in fertility preferences across couples. Additionally, let Ω_0 represent a subset of independent variables (e.g., years of education, the current number of children, etc.) that are included in equation 2. Consequently, γ_{0k} captures the extent to which predictor k (x_{jk}) relates to differences in fertility preferences at time 0. u_{0j} is a random effect that represents the degree that couple j's intercept (β_{0j}) differs from the predicted intercept (i.e., $\gamma_{00} + \sum_{k\in\Omega_0} \gamma_{0k} x_{jk}$). Equation 3 is the level 2 equation for couple slopes (i.e., β_{1j}), or how fertility preferences change over time. Let Ω_1 represent the subset of predictors used to examine couple differences in β_{1j}. Accordingly, γ_{10} represents the grand mean change in $FP_{Fij} - FP_{Mij}$ over time, γ_{1k} quantifies how differences in x_{jk} relate to differences in β_{1j}, and u_{1j} is a random effect for slope coefficients.

Results

Our analyses involve a total of 836 couples and 3,032 couple-waves of data. The mean number of waves contributed for each couple is approximately 4 and 28 percent of couples were interviewed at all six waves. Table 1 presents descriptive statistics for the couples at the first wave after the male partner was recruited into the study. Over the next few months, we will use longitudinal multilevel models to examine how preferences change over time within couples. We will test for gender effects, possible dominance of higher or lower preferences, differences in relationships before and after marriage, differences by duration of marriage and parity, and differences by age or educational imbalances within partners.

Table 1. Couple-level characteristics at first jointly interviewed wave

	mean (SD)	range
Family size preferences		
Female partner	3.44 (1.05)	1, 8
Male partner	3.45 (1.10)	0, 14
Difference (male-female)	0.01 (1.21)	-6, 9
if married	0.03 (1.14)	-6, 5
if unmarried	-0.04 (1.32)	-5, 9
Sociodemographic characteristics		
Age difference (male-female)	4.64 (3.87)	-5, 32
Years of education difference (male-female)	1.32 (3.01)	-8, 12
Female parity	1.01 (0.99)	0, 4
Male parity	1.11 (1.20)	0, 9
	%	
Married	65.4	
Unmarried	34.6	
Total	836	

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