

Masculinity: An Overlooked Cultural Influence on Fertility

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Abstract

In the 1990s, demographic research on fertility incorporated insights from gender theory that encouraged new research focused on male involvement in reproductive health. Men’s fertility preferences and behaviors, however, remain largely under-theorized. This paper outlines how research on the social construction of masculinity can illuminate motivations for men’s fertility preferences and behaviors. At the individual-level, the ways in which men enact masculinity may be a mechanism mediating or moderating part of the association between commonly studied predictors—such as education, contraceptive availability, and media access—and fertility preferences and behaviors. Also, variation over time in dominant forms of masculinity is likely part of the ideational change linked to societal-level fertility trends. This paper offers hypotheses and illustrative evidence about the relationship between masculinity and fertility that inform a proposed new research agenda aimed at greater understanding of men and reproduction.

Until the 1990s, demographic research on fertility focused almost exclusively on the preferences and behavior of women (Becker 1996; Dodoo 1998; Dodoo and Frost 2008). Data on fertility were collected from women both because of a cultural association of women with childbearing and because it was easier: women have clearly defined reproductive life spans, are more likely to be found at home, and are most often responsible for children from marriages that are no longer intact (Greene and Biddlecom 2000; Zhang 2011). Theories of fertility behavior thus treated married couples as the unit of analysis and focused on the decisions of women within that unit, largely ignoring the possibility of disagreements or conflict within the couple.

More recently, demographers have responded to calls to incorporate gender theory into fertility research, complicating existing assumptions by calling attention to the unequal distribution of decision-making power and access to resources and information within childbearing relationships (Mason 1987; Riley 1999; Watkins 1993). The Program of Action produced at the 1994 International Conference on Population and Development in Cairo was instrumental in pressing policy makers and researchers to pay attention to the effects of gender inequality on demographic processes (Presser 1997). Since then, research has demonstrated that women do not make fertility decisions alone, and that men's preferences are varied (Mason and Taj 1987; Ezeh et al. 1996; Ngom 1997; Dodoo 1998) and are highly influential on fertility outcomes (Ezeh 1993; Bankole 1995; Becker 1996; Bankole and Singh 1998; Dodoo 1998; Bawah et al. 1999; DeRose and Ezeh 2005; Zhang 2011). Recent reviews, especially those focused on fertility in sub-Saharan Africa, conclude that men play a dominant role in decision-making regarding family planning (Blanc 2001; Dodoo and Frost 2008). Starting with an emphasis on gender inequality, much of this research investigates the relative power of men and women to control reproduction (Greene and Biddlecom 2000).

This attentiveness to gender inequality has greatly enhanced our understanding of how couples make decisions about childbearing. Nonetheless, criticisms remain that gender theory has been only partially incorporated into demographic research, thus leaving unexplored some of the ways that gender influences demographic processes (Mason 1995; Greene and Biddlecom 2000; Blanc 2001; Dadoo and Frost 2008). Men have been studied primarily with regard to how they influence the fertility behavior of the women in their lives. The reasons for variation in the reproductive preferences and behaviors of *men themselves* remain under-researched. As noted by Agadjanain (2002), “little attention has been devoted to factors and mechanisms that shape, modify, and legitimize men’s fertility preferences and choices” (195). Given the empirical evidence demonstrating that men are influential in decisions about reproduction, more research on predictors of men’s fertility preferences and behaviors is required to further our understanding of fertility outcomes and trends.

Drawing on a more complete reading of gender theory, this paper sets out to provide preliminary hypotheses about how research on *masculinity* can enhance our understanding of men’s fertility preferences and behaviors, and strengthen fertility research. Specifically, I consider the theoretical propositions that masculinity is not something universal and natural that all men share; it is culturally specific, and must be constantly enacted and defended (Connell 1995). Definitions of what it means to be a successful man are socially and historically constructed, and they evolve based on changing material circumstances and gender systems (Morrell 2001). As a significant life event, childbearing can be integral to the production of a masculine identity (Morrell 2006). And yet, conceptions of masculinity have been ignored as an important cultural influence on men’s fertility preferences and behaviors. The goal of this paper is to propose a new research agenda that integrates studies of masculinity with studies of fertility

behavior and has the potential to enhance our understandings of individual behavioral choices as well as macro-level fertility trends.

To situate the proposed research agenda, I draw on existing studies of men and fertility. Also, in the final section of the paper, suggestions for operationalizing measures of masculinity for studies of fertility are illustrated using primary quantitative and qualitative data collected in urban Malawi in 2011, as well as secondary literature. Existing data are not sufficient to test the hypotheses advanced below. Instead, they are intended to provide suggestive evidence that research on masculinity can advance our understanding of fertility behaviors and trends.

I begin by discussing current theories of masculinity to provide a theoretical apparatus on which the concepts and hypotheses of the rest of the paper are built. The subsequent section addresses the relevance of studies of masculinity to studies of fertility. That discussion is followed by two sections interrogating how studies of masculinity can inform both micro- and macro-level fertility studies. The final section provides an overview of the proposed research agenda.

Theories of Masculinity

Recent demographic research on both micro-level theories of fertility behaviors and macro-level theories of fertility trends has recognized the importance of cultural and ideational influences, in addition to economic and social structural factors (Montgomery and Casterline 1996; Bongaarts and Watkins 1996; Kertzer 1997; Barber and Axinn 2004; Thornton 2001; Casterline 2001; Thornton 2005; Jayakody et al. 2008). But while the importance of culture for fertility behaviors has been well-documented, more research is needed on the content and mechanisms of cultural influence. I suggest that the social construction of masculinity is an

additional, and thus far underappreciated, cultural element that affects fertility trends and behaviors. In this section, I review the tenets of masculinity theory that are most relevant to the study of fertility.

Masculinities are ways of enacting manhood that are based on socially constructed and shared expectations of what it means to be a man. Research has shown that conceptions of masculinity provide mental maps for action based on expectations for and evaluations of how men should behave (Campbell 1997; Walker 2005; Simpson 2007; Izugbara and Undie 2008; Macia, Maharaj, and Gresh 2011; Townsend et al. 2011). Further, it has been demonstrated that collective understandings of masculinity are produced and reproduced through many mechanisms, including media portrayals of “successful” men, national policies that assume or enforce specific social roles for men, and daily interactions in which men assert masculine achievement. Men draw on available cultural repertoires to build their sense of manhood and to perform their masculinity for others. From within this vast and growing literature on masculinity, it is possible to identify three theoretical propositions that are most important for the study of the influence of masculinity on fertility.

1. *Masculinity is performed.* First, existing literature agrees that masculinity is neither biologically determined nor automatically ascribed to all men (Morrell 2006). Instead, masculinities are “configurations of practice,” meaning that men enact masculinity based on shared understandings of how “real men” behave (Connell 1995). This is consistent with contemporary theories that conceptualize social structures as the “recurrent patterning of social life” (Johnson-Hanks et al. 2011: 2). Masculinity is something that is continuously performed through actions and interactions with others, and is learned through those interactions (Connell and Messerschmidt 2005). For individual men, especially men of relatively low social status, the

achievement of masculinity is fragile and in need of constant reinforcement (Izugbara and Undie 2008). Individuals have agency (although not unlimited options) in how they perform masculinity, and the accumulation of those individual choices, whether conscious or not, have the potential to reinforce or to modify shared constructions of masculinity. Demographic studies should note that fertility-related behaviors—including choice of sexual partners, use of contraception, and childbearing—are common social domains for the performance of masculinity.

2. *Masculinity is variable.* A second important finding of the literature is that conceptions of masculinity, and the types of behavior used to perform masculinity, *vary* across time and social contexts (Morrell 1998; Reid and Walker 2005). Like all elements of cultural systems, conceptions of masculinity tend to be relatively stable, but can and do change gradually over time. Studies of masculinity in sub-Saharan Africa, for example, have shown that global social processes, such as missionary activity, colonialism, and changes in the structure of the economy, caused shifts in local conceptions of masculinity (Phiri 1983; Vaughan 1987; Davison 1993; Morrell 2001; Pattman 2001; Silberschmidt 2001; Hunter 2010). Such trajectories of change depend on both historical constructions of masculinity and contemporary realities. Competition between different conceptions of masculinity, or between conceptions of masculinity and material realities, can create openings for social change. For example, historical notions that powerful and successful men have many children may compete with contemporary family planning campaigns that depict families with many children as poor and tired when compared with families with only two children, depicted as comfortable and happy. This implies that research on fertility should be attentive to the possibility that demographic shifts can cause

changes in conceptions of masculinity, and, vice versa—that changes in conceptions of masculinity can cause systematic change in demographic behaviors.

3. *Masculinity is multiple*. Third and lastly, in addition to varying across time and space, the literature has demonstrated that *multiple* versions of masculinity can exist within any one social context. As has been observed of other ideational influences on demographic behavior (Jayakody et al. 2008), conceptions of masculinity, and the ability to enact various images of masculinity, are unevenly distributed across society. Morrell (2001:14) explains,

“Boys and men choose how to behave and this choice is made from a number of available repertoires. Such choices are never entirely free, because the available repertoires differ from context to context and because the resources from which masculinity is constructed are unevenly distributed.”

Thus, men in different social positions have different resources available to them for the successful demonstration of their manhood and the successful construction of a masculine identity (Connell 1995). Further, men “wield and access power” in different ways, depending on their status in other domains, such as class (Reid and Walker 2005: 7). Wealthier men can use economic resources to demonstrate social power and masculine achievement, whereas men of limited economic means do not have that option (Sideris 2004; Hunter 2010). For fertility studies, then, it is important to note that variations in the behaviors men use to assert their manhood can lead to variations in fertility patterns within a community. Moreover, the ways in which fertility-related behaviors are used to perform masculinity are expected to vary systematically within a population according to the availability of resources for enacting masculinity.

These three themes from the literature on masculinity provide a baseline for considering how studies of masculinity can be usefully integrated into research on fertility. Demographers generally agree that cultural and ideational factors have important explanatory power in studies of fertility behaviors. Masculinity is an element of culture that has bearing on relations between men and women and, as such, is potentially significant in the study of fertility outcomes. With these principles in mind, I now turn to a more concrete examination of whether and how the study of masculinity is relevant to the study of fertility.

Is the study of masculinity relevant to the study of fertility?

Despite the recognition that all aspects of the gender system (including constructions of masculinity) influence demographic processes, literature searches return almost no research on masculinity and fertility. A search in Scopus for the words “masculinity” or “masculinities” in the title, abstract, or keywords of articles in *Demography*, *Population and Development Review*, *Populations Studies*, *Studies in Family Planning*, and *Population Research and Policy Review* return only three articles—and these articles use the word to refer to an excess of males in the sex ratio, *not* to cultural constructions of manliness. But related literatures indicate that a focus on masculinity as an influential aspect of culture has the potential to generate a fruitful line of research. In particular, two existing literatures provide suggestive evidence of the relevance of masculinity to studies of fertility: 1) research on masculinity and sexual health; and 2) research on the association of gender attitudes and fertility preferences and behaviors.

First, research on masculinity and sexual health has demonstrated that masculinity is often asserted in the social domain of sexual behaviors (Courtenay 2000; Silberschmidt 2001; Kaler 2003; Williams 2003; Hunter 2005; Wyrod 2011). Much of this research is geared toward

understanding behaviors associated with HIV/AIDS risk. For example, studies in Tanzania, South Africa, and Nigeria demonstrate that some men who have limited economic means rely on sexual prowess to establish their masculinity (Silberschmidt 2001; Hunter 2010; Odimegwu et al. 2013). In these studies, men may have multiple sexual partners as a way of demonstrating their superior masculine status and of commanding the respect and admiration of their peers (Walker 2005; Macia et al. 2011; Townsend et al. 2011). The behavioral choices of men in these studies are driven, at least in part, by a desire to conform to an image of masculinity that privileges sexual promiscuity.

The existence of a version of masculinity that emphasizes sexual prowess, however, does not mean that all men choose to demonstrate their masculinity through promiscuity. In some places men have reacted to evidence of the detrimental effects of HIV and violence against women by attempting to construct a model of masculinity rooted in equal gender relations (Morrell 2001; Sideris 2004; Lynch, Brouard, and Visser 2010; Dworkin et al. 2012). These men tailor their sexual behaviors to conform to an alternative model of masculinity.

All of these studies on masculinity and sexual health document the importance of constructions of masculinity for sexual behavioral choices, and many of them find that variation in the ways men choose to perform masculinity is associated with variation in sexual behaviors. For the purposes of the current paper, it is important to note that the same social actions are often the objects of study in both research on sexual behaviors and research on fertility behaviors. For example, use of condoms may be viewed as a protection from sexually transmitted infections and/or as fertility limitation, depending on the research framework. Since conceptions of masculinity clearly influence sexual behavior, it is reasonable to assume that they may also

influence *fertility* behavior. As an important facet of sexual behaviors, fertility behaviors are also likely to be integral to the performance of masculinity (Morrell 2006).

Studies of gender attitudes are a second line of research that provides evidence suggesting that studies of masculinity may be relevant to studies of fertility. Gender attitudes include individual beliefs about the proper roles for men and women in society, as well as beliefs about the ways in which they should behave and relate to one another. Personal ideals of masculinity and femininity are part of gender attitudes. Measures of gender attitudes cannot capture the ways in which men perform masculinity in specific contexts, which is likely to be important to studies of fertility, but these measures may capture variation in propensity to aspire to different variants of masculinity that are rooted in more or less gender egalitarian ideologies. Because these concepts are related, it is worth reviewing literature on gender attitudes and fertility for clues as to how masculinity and fertility may be related.

Existing studies show that equitable gender attitudes are generally associated with smaller family sizes. In developed countries, men's gender attitudes have been found to be associated with their fertility preferences and behaviors (Westhoff and Higgins 2009). Similarly, in Nigeria, Ethiopia, and Kenya, equitable gender attitudes are associated with lower desired family size and/or higher contraceptive use (Isiugo-Abanihe 1994; Stephenson et al. 2012). These studies indicate that gender attitudes are associated with fertility behaviors. It is reasonable, therefore, to hypothesize that constructions of masculinity also be associated with fertility behaviors.

In sum, there are many indications that masculinity is an important cultural influence on fertility. Existing research shows that conceptions of masculinity influence sexual health. Other research demonstrates links between gender attitudes and men's fertility preferences and

behaviors. All of this evidence suggests that studies of masculinity are pertinent to the study of fertility. In the next two sections, I examine how studies of masculinity can enrich both micro- and macro-level studies of fertility.

How is the study of masculinity important for micro-level studies of fertility?

In this section I review how theories of masculinity fit with existing individual-level fertility research. I argue that the most important contribution of masculinity theories to micro-level fertility studies will be the elaboration of mechanisms linking commonly studied predictors with fertility outcomes. At the micro-level, variation in the ways men perform masculinity may help explain some of the frequently observed associations. In some cases, conceptions of masculinity may partially mediate the relationship between predictors and fertility outcomes. I posit that masculinity plays such a role in the connection between education and fertility. In other cases, masculinity may moderate the relationship between predictors and fertility outcomes; contraceptive availability may be one such case. Finally, the influence of factors such as media access may be both mediated and moderated by conceptions of masculinity. The following subsections review relevant evidence for each of these examples.

Education

Education is consistently one of the strongest predictors of men's fertility preferences and behaviors (Ezeh et al. 1996; Jejeebhoy 1995). Higher levels of educational attainment are associated with wanting and having fewer children (Caldwell 1980; Ezeh et al. 1996; Bongaarts 2003). When specified, the mechanisms underlying this association are often described as instrumental changes that increase couples' ability to limit childbearing. These mechanisms include increased belief that fertility is within an individual's conscious control and increased

knowledge of where and how to obtain contraception. In other words, the content of education can affect the accessibility of contraception.

Other mechanisms underlying the link between education and fertility are less instrumental and more cultural. Education is thought to broadly affect fertility goals and the acceptability of contraception. For example, DeRose and Ezeh (2005) found that social change, spurred by increases in men's education, led to falling fertility rates in northern Ghana. They attribute the changes to "strong effects [of education] on the ideology of reproduction" (200). Findings such as those from DeRose and Ezeh's (2005) study suggest that education is influential, at least in part, because of its cultural content.

One overlooked component of the cultural effects of education may be the influence of education on conceptions of masculinity. Educational messages not only have the ability to influence ideologies of reproduction; they may also influence constructions of what it means to be a successful man. Studies of masculinity highlight schools as sites for the construction of masculinity (Swain 2005). Also, quantitative studies of gender attitudes consistently find that men with more education hold more equitable gender attitudes (Pulerwitz and Barker 2008; Barker et al. 2011), and conceptions of masculinity inform those gender attitudes. Education has the potential to expand the number of ways imaginable of being a man, and to affect the relative value of different conceptions of masculinity. To the extent that masculinity has implications for sexual relationships, childbearing, and fatherhood, it likely to affect fertility preferences and behaviors (Morrell 2006). This means that men with different levels of education are expected to have access to, and to value different conceptions of masculinity. In this proposed model, conceptions of masculinity are a mediating factor between education and fertility. I hypothesize

that one reason men's education is associated with fertility is the effect of education on constructions of masculinity, which in turn influence fertility.

There is also a second way in which masculinity can act as a mechanism linking education and fertility. In addition to affecting conceptions of masculinity, as just reviewed, education also affects the resources available to men to enact masculinity. Educational credentials are important material resources that can be used to assert masculine achievement. In that way, education may provide a source of social status that is unrelated to childbearing. Men who achieve relatively high educational attainment can rely on their educational success to establish their masculinity and may feel less social pressure to prove their masculinity through procreation. As explained by Basu (1999: 283), "the prestige of education [is] able to compensate for the loss of status associated with low fertility in uneducated families." In other words, educated men have more choices about how to assert their success and their masculinity (Connell 1995). Educational achievement may alleviate the pressure felt by some men to father children as evidence of their masculinity. In these theories, the association between education and fertility is mediated by the material value of education in the establishment of masculinity, which reduces the role of childbearing in asserting masculine achievement.

In summary, the effects of education on fertility may be partially mediated by masculinity. Educational attainment affects the value that individuals associate with particular conceptions of masculinity and it increases the types of material resources accessible to individuals for the demonstration of masculinity. To the extent that masculinity has bearing on fertility decisions, these mechanisms may be important explanations for the commonly observed association between education and fertility. Empirical studies of the role of masculinity as a

mediator in this statistical relationship have the potential to enhance our understanding of why education and fertility are so strongly linked.

Contraceptive availability

Use of contraception is an important proximate determinant of fertility (Bongaarts and Potter 1983). Knowledge of contraception among men is high worldwide (Ezeh et al. 1996; Bankole and Singh 1998). Use of contraception, however, varies both across and within social contexts (Ezeh et al. 1996). The general acceptability of contraception is negotiated through a social process, and acceptability increases as use increases (Behrman, Kohler, and Watkins 2002). Approval of contraception in the abstract, however, does not necessarily translate into use with partners. Depending on the method, sexual partners often must collaborate for contraceptive use. Because contraception is used within the context of relations between men and women, conceptions of masculinity are likely influential. More specifically, the association between contraceptive availability and contraceptive use may be stronger or weaker depending, in part, on what the use of contraception means for the performance masculinity.

Existing research lends credence to the idea that masculinity is an important influence on the process of negotiating contraceptive use. Social and cultural norms, including constructions of masculinity, structure intimate interactions regarding contraceptive use. Masculine ideals can influence both men's willingness to discuss contraception and their receptivity to the idea of their partners using contraception. In a study in Mozambique, for example, men desired lower fertility, but did not want to discuss contraceptive options at length because it was an "unmanly" topic (Agadjanian 2001: 298). This limited their knowledge of contraceptive options and their involvement in the choice of contraception. Several other studies record men expressing

concerns about their wives' use of contraception because it challenged their authority in the home (Blanc 2001). A study in rural Kenya found that men fretted about the possibility of women acting autonomously to control fertility, which would undermine the gendered balance of power (Watkins, Rutenberg, and Wilkinson 1997). Similarly, at the beginning of the fertility transition in northern Ghana, the introduction of modern contraception led to anxiety among men that women would attain the ability to act independently to manage reproduction, an area traditionally under men's patriarchal control (Bawah et al. 1999). Thus, even among men who wish to limit their fertility, concerns about not appearing masculine caused hesitation when deciding whether and how to use contraception.

From these examples, it is clear that ideals of masculinity that emphasize men's control over reproduction will moderate the association between contraceptive availability and contraceptive use, with obvious implications for fertility. Other conceptions of masculinity, such as a cultural script that links masculinity and sex without condoms (Kaler 2003; Simpson 2007), also have the potential to moderate the relationship between contraceptive availability and fertility. Broadly, regardless of the availability of contraception, cultural constructions of masculinity may influence whether contraception is used in specific sexual encounters. What kind of masculinity is enacted is expected to vary by the immediate context of the sexual interaction. This variation may help to explain why contraception is used with some partners and not with others, or in some sexual interactions and not in others. The existing evidence leads me to hypothesize that conceptions of masculinity moderate the relationship between availability of contraception and fertility outcomes. Empirical studies, especially those focused on variance in contraceptive use in settings of uniform contraceptive availability, would do well to investigate the moderating role of constructions of masculinity.

Media access

The media contribute to the shaping of fertility preferences. Bankole and Westoff (1995) analyze DHS data and find substantial cross-sectional associations between media access and fertility attitudes and behaviors. Their findings from analysis of longitudinal data from a study in Morocco lend support to the hypothesis that the relationship between media access and fertility preferences and choices might be causal. Similarly, in a longitudinal study in Nepal, Barber and Axinn (2004) show that exposure to mass media is associated with preferences for smaller families, tolerance of contraceptive use, and childbearing behavior.

Researchers posit that media exposure has minimal direct individual-level effects, but can have substantial influence on social norms and behavioral trends by serving as a stimulus for social network diffusion of new ideas (Hornik and McAnany 2001). This stimulus is provided by targeted messages designed by national family planning agencies and international donors to encourage smaller families, as well as the content of ordinary entertainment and news media (Hornik and McAnany 2001). In countries with high fertility rates and family planning programs, media messages link large families with poverty, and small families with wealth and happiness (Smith 2004). Entertainment media can affect population values by portraying content that glorifies some kinds of life styles, behavior, and achievement.

Little research has examined what kinds of media are influential on fertility and under what conditions. I posit that research on constructions of masculinity may help to answer both of these questions. Media may alter social constructions of masculinity, which may in turn influence fertility preferences and behaviors. At the same time, existing constructions of masculinity are an important lens through which media are interpreted. In those ways,

constructions of masculinity have the potential to both mediate and moderate the associations between media access and fertility.

Media contributes to the collective construction of what it means to be a successful man. The influence of media on which sexual and reproductive practices are associated with masculinity can affect men's fertility preferences and behaviors. For example, in places with relatively high fertility, all media that portray successful men as the heads of small families have the potential to influence constructions of masculinity, in addition to altering social norms regarding reproduction. In this way, constructions of masculinity will play a mediating role between media access and fertility.

In addition, constructions of masculinity may moderate the effects of media. Gender systems condition the impact of other factors on demographic changes (Mason 1995, 2001). This is relevant for the examination of the influence of media. If the mark of successful manhood is fathering many children who will continue the family lineage, then media messages emphasizing the link between limited fertility and wealth will likely have minimal effects. On the other hand, if the mark of successful manhood is educational achievement and the accumulation of material wealth, then media messages promoting smaller families as a way to achieve prosperity will be more influential. In other words, existing structures of masculinity will influence the salience of media messages that aim to encourage reduced fertility levels. Variation in dominant constructions of masculinity across social contexts may explain some of the variation in the effects of media on fertility.

To summarize, media can play a role in stimulating collective construction and reconstruction of masculinity, which may have implications for fertility. At the same time, existing constructions of masculinity will condition the influence of media on fertility behaviors.

Thus, I hypothesize that conceptions of masculinity will both mediate and moderate the relationship between access to media and fertility behaviors.

How is the study of masculinity important for macro-level studies of fertility?

Macro-level studies of fertility generally seek to explain differences in fertility rates across time and across societies by focusing on the contribution of broad structural factors, such as the structure of the economy (Becker 1991), organization of families (Caldwell 1982), and systems of gender differentiation (Mason 2001). As discussed in the theory section above, conceptions of masculinity are part of the gender system and are expected to vary across time and place. As such, changes in conceptions of masculinity may play a role in the explanation of fertility trends, and may help to explain differences in fertility rates across societies. The remainder of this section explores these two possibilities.

A useful example of how attention to shifting constructions of masculinity can enhance our understanding of fertility trends comes from linking the literature on fertility patterns attributed to changes in economic and social systems in Africa with literature on masculinity in Africa. A large body of research documents the contributions of lineage-based family systems and labor-dependent economies, commonly found in sub-Saharan Africa, to encouraging high fertility (Lesthaeghe 1980; Caldwell 1982; Caldwell and Caldwell 1987; Mason 2001). In those societies, having many children makes economic sense and it is rewarded socially (Hollos and Larsen 2004). Economies are becoming increasingly monetized (Mason and Taj 1987; Watkins, Rutenberg, and Wilkinson 1997), however, resulting in the declining importance of children for the production of household resources (Caldwell 1982). Given currently widespread social norms

that obligate parents to send their children to school, children now represent a substantial drain on family income (Mason 1997).

At the same time, under changing economic and social conditions, the bases for asserting masculinity are shifting and multiplying (Morrell 2001). Today, fathers in Africa are increasingly judged not only on the number of children they produce, but also on their ability to provide for those children (Morrell and Richter 2006). The expectation that men will provide the financial means to feed, clothe, and school their children may seem natural to many readers, but this is a schema of masculinity that has evolved over time (Silberschmidt 2001) and become so pervasive that it appears uncontested in many contemporary societies (Johnson-Hanks et al. 2011: 6). Changes in the economic role of children are linked to changing cultural expectations of men. The gendered division of labor attributes wage-earning responsibilities largely to men (Silberschmidt 2001). Men are motivated, therefore, to have a manageable number of children because of a desire to meet the needs of their children, and also because many men perceive that their success as a man will be judged based on their ability to provide for their children. The economic well being of the family is interpreted using available cultural repertoires, including conceptions of masculinity.

The causal ordering in this example is complex. Large-scale economic and social changes contribute to changes in conceptions of masculinity (Morrell 2001). At the same time, conceptions of masculinity are an important lens through which economic and social conditions are evaluated, and the use of new cultural frameworks can lead to additional changes in economic and social behavior. Masculine ideals that emphasize men as providers encourage men to limit their fertility. The influence of this cultural script can expand beyond the sphere of influence of other social and economic changes. In other words, men who live in rural areas and

rely on subsistence farming may live under economic conditions that encourage large families, but nonetheless, they may be motivated to limit their fertility by the introduction of a new ideal of masculinity that influences how they and others judge their success as men.

Macro-level studies of the effects of education provide background for hypotheses about how societal-level variation in structures of masculinity can help explain variation in fertility patterns across space. Studies by Kravdal (2002; 2012) find that the average educational level in a woman's community is negatively associated with fertility rates. The effect of average educational attainment on a woman's fertility is above and beyond the effect of her own educational attainment. Although he did not conduct the same analyses among men, it is plausible that the effects would be similar because one way that the average educational attainment affects individual fertility behaviors is by altering the cultural context of the community (Caldwell 1980). Influential aspects of the cultural context likely include social norms regarding contraception and fertility. Community norms regarding constructions of masculinity may also vary with average educational attainment and may influence individual men's fertility preferences and behaviors. Given consistent associations between education and masculinity at the individual level (Pulerwitz and Barker 2008; Barker et al. 2011), it would be worthwhile to conduct an empirical examination of the role of variation in dominant constructions of masculinity in explaining associations between macro-level measures of education and fertility patterns.

Recognizing that the preceding explanation of the relevance of masculinity to macro-level fertility studies has been presented as abstract propositions, I close this section with a brief empirical example that illustrates how studies of variation in conceptions of masculinity at the macro-level can contribute to understanding variation in fertility patterns. The example comes

from a study in Tanzania that was remarkable for its detailed and holistic analysis of social and cultural influences on fertility. Hollos and Larsen (2004) describe two different types of marital relations evident in the Pare community in northern Tanzania: compassionate marriages and male-dominant marriages. They find that men in compassionate marriages desire fewer children than those in male-dominant marriages. They conclude, “It is our contention that men do not simply calculate the ‘utility value’ of children but think about marriage and childbearing as part of a ‘whole package’ in which individual life paths are informed at least partially by the ideas of a good or desirable life of the cultural group in which they live” (Hollos and Larsen 2004: 1748). Although they do not state so explicitly, the different notions of a desirable life course that they describe are fundamentally linked to two different conceptions of what it means to be a man. The desirable life course that includes compassionate marriage is based on a conception of masculinity that emphasizes partnership between spouses. On the other hand, the desirable life course that includes male-dominant marriages is based on a belief in male superiority. These two different collective constructions of masculinity are associated with men’s fertility preferences and behaviors. This study shows how people in distinct communities living under similar conditions can come to different conclusions about desired fertility because they are operating with different conceptions of masculinity as their guides.

A research agenda

Initial research efforts have documented associations between men’s education, access to contraception, and exposure to media, on one hand, and their fertility preferences and behaviors, on the other hand. The performance of masculinity is an overlooked mechanism that may play a role in the associations between each of these predictors and men’s fertility preferences and behaviors. I have presented suggestive evidence that the study of masculinity can enhance our

understanding of variation in fertility behaviors and our explanations of fertility trends. In particular, I proposed the following five specific hypotheses:

1. Conceptions of masculinity partially mediate the association between education and men's fertility preferences and behaviors.
2. Conceptions of masculinity partially moderate the association between contraceptive availability and men's fertility preferences and behaviors.
3. Conceptions of masculinity both partially mediate and partially moderate the association between media access and men's fertility preferences and behaviors.
4. Differences in fertility rates across time can be partially explained by differences in conceptions of masculinity.
5. Differences in fertility rates across societies can be partially explained by differences in conceptions of masculinity.

Empirical studies are needed to test the value of each of the hypotheses. Moreover, additional research will lead to further propositions of when and how masculinity matters for fertility behaviors. New data is needed to test these hypotheses; I offer them only to illustrate the potential contributions of the study of masculinity to research on fertility.

In designing empirical studies, researchers will face measurement challenges and possible pitfalls of over-simplification. It is challenging to operationalize measures of masculinity, especially for quantitative studies. Also, while it is possible to hypothesize about the discrete contributions of conceptions of masculinity to the relationships between specific variables, social systems are messy. The interplay between structural and ideational factors is cyclical. Reproductive choices are influenced by conceptions of masculinity, and at the same time reproductive choices influence the construction of what is masculine (Agadjanian 2001;

Watkins et al. 1997; Allendorf 2012). Moreover, conceptions of masculinity cannot be studied apart from the larger gender systems in which they are embedded. The study of the influence of masculinity on fertility behavior is methodologically complex, however, this challenge should not be allowed to stymie a potentially fruitful line of research.

To conclude this article, I discuss a few research endeavors that can inform efforts to operationalize measures of masculinity in studies of fertility. I argue that a variety of both qualitative and quantitative research is needed to examine the role of masculinity in men's fertility preferences and behaviors. Existing in-depth ethnographic research on historical and contemporary masculinity provides a critical foundation for this work (e.g. Morrell 2001; Hunter 2010; Gutmann 2006; Hirsch et al. 2009). The research by Hollos and Larsen (2004) described in the previous section is a good example of how ethnographic research methods can be used to study the influence of conceptions of masculinity on fertility at the macro-level. Similarly, an historical study of demographic trends in Swiss villages in the late 19th and early 20th centuries documents changes in norms of masculinity among Protestant communities that contributed to changes in men's motivations for fertility control and led to macro-level changes in fertility levels (Praz 2007). Additional ethnographic and historical work will help illuminate the influence of masculinity on macro-level fertility trends and differentials. Where available, such research can also serve as a guide for additional qualitative and quantitative work.

The remainder of this section draws from a study that took place in urban Malawi in 2011 to illustrate how we might begin to think about operationalizing measures of masculinity in qualitative and quantitative studies of fertility. The study was primarily designed to examine demand for male circumcision for HIV prevention, but also included some preliminary questions intended to capture variation in conceptions of masculinity.¹ The data are insufficient to test any

of the hypotheses proposed above, but they do offer a baseline for considering how to approach studies of masculinity and fertility. Data collection included both a quantitative survey of a random sample of approximately 1,250 men in one urban neighborhood, and in-depth interviews with a random sub-sample of 64 survey participants. Additional details on the study design can be found in Chinkhumba, Godlonton, and Thornton (2012).

Qualitative methods, such as in-depth interviews, can be used to explore common conceptions of masculinity, as well as the ways in which men use sexual and reproductive behaviors to perform masculinity. In the Malawi study, interviewers asked the following two questions to capture conceptions of masculinity: 1) “In general, around here, what are some of the things that men do to earn the admiration/respect of their male peers?”; and 2) “When Malawians say that someone is a real man, what do they consider?” Two of the most common responses suggested that conceptions of masculinity have bearing on fertility behaviors.

First, in the least contested and most frequently mentioned response, men indicated that their ability to provide for their children affects whether others perceive them as “real men.” Joseph (age 29) said, “to say today they [the children] go to bed while hungry, children walking without clothes and doing like that. That means that man is not fit, yeah, sure.” When asked what others mean when they say that someone is a “real man,” Frank (age 31) responded, “they mean that man is able to take care of his family very well.” Benard (age 18) gave a similar response: “First they [other men] look at the way one is supporting his family.” Anthony (age 22) says that men “admire someone who takes good care of his family.” All of these interview participants expected that others would evaluate their masculinity based on their ability to meet their children’s needs.

This widespread conception of masculinity was echoed in men's responses to questions about their fertility preferences. Men in the study talked about wanting to limit their fertility not only because of an economic calculus, but also because the perceived well-being of their children was used by others to judge their success as men. For example, Gideon (age 23) explained that children without proper care were embarrassing to their fathers: "Everyone does have children according to how he looks at his future, yeah. Saying, 'Will I manage to dress, care for these children?' So that when they are moving on the road, they should not bring an embarrassment, yeah." Other respondents explained that when people see children who haven't received proper care, they attribute low social status to their fathers. Edward (age 27) said that when the man fails to provide what is needed, "the children are suffering like they don't have their father." Benjamin (age 21) explained that even a man's children would lose respect for him if he were unable to provide for the family. He said that when a man cannot provide, "Children will become naughty because they will have realized that there is nothing worthwhile that you are doing for them as their father." Through these explanations, respondents asserted that their preference for relatively few children was motivated in part by an understanding that men who have children with unmet needs risk ridicule that undermines their masculinity.

A second common conception of masculinity was founded on sexual prowess, and led to opposite expectations about fertility outcomes. For example, many respondents said something similar to George (age 19), who explained, "Some take someone with a lot of girlfriends as a real man." This response was regularly scorned as behavior not to be emulated, and yet it was recognized as a popular strategy for asserting masculine achievement. If men who assert their masculinity by having many girlfriends opt to forgo contraception, these behavioral choices may

have implications for fertility. Men who use sexual exploits as a means of asserting their masculinity may end up fathering children.

Future qualitative research on masculinity and fertility can do much to further our understanding of fertility behaviors. To start, studies of the relationships between common conceptions of masculinity and fertility preferences in specific social groups will provide the foundation for building additional hypotheses. Also, research is needed to examine how the desire to appear masculine affects men's fertility behaviors within the context of specific relationships. Researchers should be attentive to what men *do* in an effort to appear masculine. Findings from qualitative studies that capture local conceptions of masculinity and delineate the axes of variation in those local meanings will provide a valuable foundation for those wishing to design quantitative studies to explore distributions and associations at the population level.

Quantitative studies of masculinity and fertility can build off of qualitative research and newly developed measures of gender attitudes, such as the Gender Equitable Men (GEM) scale (Pulerwitz and Barker 2008). Some of the items in the GEM scale require respondents to indicate their level of agreement with statements that assess the centrality of sexual exploits to manliness, including, "A man needs other women, even if things are fine with his wife" and "Men are always ready to have sex." Other items assess the degree to which men feel entitled to control sexual encounters, such as "It is the man who decides when to have sex." The relevance of these survey items will vary by social contexts, but they may be useful for measuring adherence to a masculine image that privileges sexual prowess in places where that is a salient type of masculinity.

A modified version of the GEM scale was included in the Malawi 2011 quantitative survey.² Results indicated that gender attitudes were correlated with fertility in that setting.

Figure 1 shows data for men ages 26-28 (the middle of the sample age range) and demonstrates that men who had more egalitarian attitudes (scored high on the scale) were generally less likely to have fathered a child during their lifetimes. Other studies using the GEM scale have demonstrated similar associations between gender attitudes and contraceptive use (Pulerwitz and Barker 2008; Stephenson et al. 2012). These results encourage investment in the development of additional survey items for measuring adherence to competing conceptions of masculinity, and creative strategies for measuring variation in how masculinity is enacted in particular circumstances. Although the measurement of masculinity is conceptually complex, foundational research indicates that quantitative measures can contribute to our understanding of how the performance of masculinity influences fertility behaviors.

[Insert Figure 1 about here.]

Conclusion

The purpose of this article was to present a research agenda focused on men and reproduction. Of particular importance is research on men's own views of their reproductive roles (Greene and Biddlecom 2000). The centrality of sexual and reproductive behaviors to the performance of masculinity in many social contexts makes the study of masculinity important to the study of motivations for men's fertility preferences and behaviors. Research is needed to examine when and how masculinity functions as a cultural influence on men's fertility. Although there has been very little research to date that directly examines the role of masculinity in fertility behavior, existing studies provide ample evidence that this has the potential to be a fruitful line of research. Without an examination of how desires to enact various conceptions of masculinity influence men's behavioral choices, our understanding of men's fertility will remain incomplete.

Notes

1. Data were collected as part of a larger study on male circumcision for HIV prevention in Malawi that included both quantitative and qualitative components. The study began in 2010 with a baseline survey administered in an urban neighborhood to a random sample of uncircumcised men between the ages of 18 and 35. Questions about gender attitudes and sexual behaviors were included in the follow-up survey that was conducted about one year later. The follow-up survey achieved a response rate of nearly 77 percent, reaching approximately 1,250 men. After the follow-up survey, a stratified random sub-sample of survey participants was selected to participate in in-depth interviews. The interviews lasted between 45 minutes and 3 hours, were conducted by male Malawian interviewers, and included questions on circumcision, as well as other sexual and reproductive health behaviors and beliefs about contemporary gender relations in Malawi.

2. The modified GEM scale used in Malawi included 13 statements from the inequitable gender norms scale (Pulerwitz and Barker 2008). Respondents were asked whether they agreed, partially agreed, or disagreed with each of the statements and a scale score was created giving respondents one point for every one of these statements with which they disagreed:

- It is the man who decides when to have sex
- There are times when a women deserves to be beaten
- You don't talk about sex, you just do it
- Changing diapers, giving the kids a bath, and feeding the kids are a woman's responsibility
- I would be outraged if my wife asked me to use a condom
- A man should have the final word about decisions in his home
- It is a woman's responsibility to avoid getting pregnant when a pregnancy is not desired
- Women need health services more than men
- I would feel weak if I asked for help
- If a woman cheats on a man, it is okay for him to hit her
- Men need sex more than women do
- A man needs other women, even if things are fine with his wife
- Men are always ready to have sex

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FIGURES

Figure 1: Probability of Having Fathered a Child by Gender Attitudes (13 = most egalitarian) for Men Ages 26-28

