Gender Ideologies: Insights into Health and Demographic Behaviors

by

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ABSTRACT

The global agenda set at the 1994 International Conference on Population and Development in Cairo called upon researchers and program implementers to address the effects of gender inequality, especially the way inequality shapes sexual and reproductive health and demographic processes. Since then, researchers have documented links between women's relative disadvantage and negative sexual and reproductive health outcomes. Less attention has been given to the systems of belief, or gender ideologies, that legitimate ongoing gender inequality. Yet, gender inequality would be unsustainable without supporting beliefs and values that define men and women as different and unequal. Those ideational aspects of gender systems—beliefs, values, attitudes, and norms—are the subject of this dissertation. The three empirical chapters investigate trends in attitudes concerning gender relations or connections between those attitudes and health and demographic behaviors. The first paper examines worldwide trends in attitudes about violence against women. Women in low-income countries have recently become less likely to justify intimate partner violence. The paper documents evidence that global cultural influences may be largely responsible for the observed trend in individual gender attitudes. The second paper uses survey data to test associations between men's gender attitudes and their risk of HIV in Malawi. The analyses show that men with more egalitarian gender attitudes engage less frequently in sexual behaviors that involve risk of HIV transmission and report lower self-assessed risk of HIV. Finally, the third paper employs qualitative data from Malawi to explore the relevance of ideas about gender to men's fertility. The paper demonstrates that gender norms

are imbued with ideals relevant to men's fertility preferences and behaviors. Each paper begins from the premise that ideational factors, such as social norms and individual attitudes, play an important role in shaping behavior, and are central to the perpetuation of gender inequality. All three papers use different measures of ideas about gender and all three posit that attention to these ideational elements is crucial to understanding individual motivations for health and demographic behaviors.

CHAPTER 1

Introduction

In recent decades, worldwide gender inequality has garnered considerable international attention. The global agenda set at the 1994 International Conference on Population and Development in Cairo called upon researchers and program implementers to address the effects of gender inequality, especially the way inequality shapes sexual and reproductive health and demographic processes (United Nations 1994). Since then, a large body of literature has documented the influence of gender systems on reproductive health (Blanc 2001; Mason 2001; Varga 2003; Li 2004; Dodoo and Frost 2008). Much of this literature focuses on the association between women's relative disadvantage, or lack of autonomy, and negative health outcomes (Dyson and Moore 1983; Greene and Biddlecom 2000; Beegle et al. 2001; Furuta and Salway 2006). Generally, these studies focus on the effects of women's structural disadvantages, such as lower educational attainment, limited access to resources, constrained decision-making power, and restricted mobility.

To date, there has been less attention given to the ideological aspects of gender systems, that is, the beliefs and values that support gender inequality. Gender inequality is built on the premise of gender differentiation—the assignment of roles, rights, resources, and responsibilities based on gender. The socially constructed expectations defining differences between men and women are the basis of gender inequality. As explained by Ridgeway and Correll, "If gender is a

system for constituting difference and organizing inequality on the basis of that difference, then the widely held cultural beliefs that define the distinguishing characteristics of men and women and how they are expected to behave clearly are a central component of that system" (2004:511). The uneven distribution of resources between men and women certainly affects people's life chances. At the same time, that inequality would be unsustainable without a supporting system of beliefs and values that legitimates the inequality.

This dissertation examines ideational aspects of gender systems. The three empirical chapters investigate either trends in attitudes concerning gender differentiation or relationships between those attitudes and health and demographic outcomes. The first paper examines worldwide trends in attitudes about violence against women. The second paper uses survey data to test associations between men's gender attitudes and their risk of HIV in Malawi. Finally, the third paper employs qualitative data from Malawi to explore the relevance of masculinity schemas to men's fertility preferences and behaviors. Each paper begins from the premise that ideational factors, such as social norms and individual attitudes, play an important role in shaping behavior, and are central to the perpetuation of gender inequality. All three papers use different measures of ideas about gender and all three posit that attention to these ideational elements is crucial to understanding individual motivations for health and demographic behaviors.

Worldwide Gender Inequality

Despite recent worldwide efforts to reduce gender inequality, evidence of women's relative disadvantage remains abundant. Promoting gender equality and empowering women was one of eight Millennium Development Goals (MDGs) established by the international community in

2000. The 2013 MDG progress report notes that much work remains to be done in this arena: "whether it is in the public or private sphere, women continue to be denied opportunities to participate in decisions that affect their lives" (United Nations 2013:23). Likewise, the World Economic Forum's Global Gender Gap report from 2012 concludes that large gaps remain between men and women in economic and political participation (Hausmann, Tyson, and Zahidi 2012). Recent studies find that only 48 percent of women of working age are employed, compared with 73 percent of men (United Nations 2013). Also, worldwide only approximately 21 percent of the seats in national parliaments are occupied by women (United Nations 2013).

Since the International Conference on Population and Development in Cairo in 1994, global consensus recognizes that reducing gender inequality is central to achieving goals for reducing maternal mortality, providing universal access to reproductive healthcare, and combatting the spread of HIV/AIDS (United Nations 1994). Global monitoring shows that these goals also remain far from being met. The maternal mortality ratio is 240 deaths per 100,000 live births for low-income countries, still nearly twice the 2015 MDG target. In some regions, progress has been especially inadequate, such as sub-Saharan Africa where the ratio is 500 deaths per 100,000 live births (United Nations 2013). Also, while the rate of new HIV infections is on the decline, more than 60 percent of the people newly infected with HIV in 2011 were women (United Nations 2013). While these statistics are not evidence of gender inequality in themselves, scholars and policy makers agree that reproductive health targets will not be met until gender inequality is reduced (United Nations 1994).

Another detrimental effect of gender inequality is high levels of violence against women. According to a recent study by the World Health Organization, approximately 35 percent of women worldwide have experienced physical or sexual violence at the hands of an intimate

partner or sexual violence committed by a non-partner (Garcia-Moreno et al. 2013). Violence against women both perpetuates and is perpetuated by gender inequality. The report's authors highlight a need to "address the economic and sociocultural factors that foster a culture of violence against women" (Garcia-Moreno et al. 2013:3). They also note that, "acts of violence against women are not isolated events but rather form a pattern of behavior that violates the rights of women and girls, limits their participation in society, and damages their health and well-being" (Garcia-Moreno et al. 2013:1). The high rate of violence against women is visceral evidence of the negative effects of gender inequality.

The overwhelming evidence of gender inequality inspires this research on the systems of belief that support these negative outcomes. The focus of this dissertation is on individuals in low-income countries because gender inequality often has the most detrimental effects in the world's poorest communities, where many people face already limited life chances. The results presented in the three empirical chapters have implications for sociologists interested in the role of ideational aspects of gender systems in perpetuating inequality, for demographers examining motivations for the behaviors that affect population health and demographics, and for policymakers who wish to improve health and demographic outcomes in their populations.

Gender Schemas: Key Concepts of the Dissertation

As described above, understanding the ideational elements of gender systems is essential for understanding how and why gender inequality is perpetuated. There are many terms for the ideational components of gender systems. The title of this dissertation references gender ideologies, which is intended as an umbrella term for all ideational aspects of gender systems. The empirical chapters refer specifically to gender schemas, gender attitudes, and masculinity

schemas. The following provides a brief overview of each of these concepts. Drawing on the work of Sewell (1992), Johnson-Hanks and colleagues (2011:2) define schemas as "often taken-for-granted ways of perceiving and acting through which we make sense of the world and motivate our actions." Schemas are collective in nature. Extending this definition, gender schemas are shared mental representations, such as values and beliefs about how men and women should behave and how they should relate, that inform people's understanding of the world around them and their determinations of how to act in the world. They are both models *of* the world and models *for* the world, informing people's goals, interpretations of the actions of others, behavioral choices, and justifications of their own conduct (Thornton, Axinn, Fricke, and Alwin 2001). Gender schemas inform our beliefs about the differences between men and women, our evaluations of the kinds of behaviors that are appropriate for men versus women, and our expectations for relationships between men and women.

Gender attitudes are individual evaluations of common gender schemas. Individuals can hold relatively more or less egalitarian gender attitudes. Those who reject gender schemas that reinforce male superiority and dominance have comparatively egalitarian gender attitudes. Many gender schemas exist within any one social context and they are often contradictory. Also, the extent to which any given gender schema is endorsed in a population can change over time. These features of gender schemas are also true of gender attitudes at the individual level. Individuals hold multiple, and often conflicting, gender attitudes. And, an individual's gender attitudes may change over time.

The dissertation also includes discussion of masculinity schemas, which are one type of gender schema. Masculinity schemas are socially constructed expectations for what it means to be a man and what types of behavior are appropriate for men. Men enact available schemas to

build their sense of manhood and to perform their masculinity for others. Research has shown that masculinity schemas 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). Like all gender schemas, conceptions of masculinity vary across time and social contexts (Morrell 1998; Morrell 2001; Pattman 2001; Silberschmidt 2001; Reid and Walker 2005; Hunter 2010). Also, multiple masculinity schemas exist within any one social context (Connell and Messerschmidt 2005). A man's ability to enact a particular masculinity schema will depend on his access to the required materials and resources, as well as the ability of others in his social network to recognize the schema that he is invoking with his behavior (Morrell 2001). These conditions are unevenly distributed both within and between societies.

The concepts of gender schemas, gender attitudes, and masculinity schemas are used throughout the dissertation. The following section provides a brief overview of how these concepts are investigated in each of the empirical chapters.

Gender Schemas through Three Empirical Lenses

The three empirical chapters of this dissertation investigate gender schemas in different ways and using different kinds of data. Each chapter brings together sociological literature and theory on gender with demographic methods and/or topics of inquiry. The chapters examine gender schemas in relation to three topics that are central to contemporary social demographic research: diffusion of cultural norms, HIV risk, and fertility. They contribute to a broader research agenda among demographers who recognize the importance of cultural and ideational influences, in addition to economic and social structural factors, for demographic processes (Montgomery and

Casterline 1996; Bongaarts and Watkins 1996; Kertzer 1997; Barber and Axinn 2004; Thornton 2001; Casterline 2001; Thornton 2005; Jayakody et al. 2008). Together, the three chapters suggest that research on the ideational elements of gender systems can enhance our understanding of how gender inequality is perpetuated or undermined, and how gender inequality can influence the outcomes of a variety of major social processes.

Chapter 2, "Increasing Rejection of Intimate Partner Violence: Evidence of Global Cultural Diffusion," uses survey data from 26 countries to examine trends in gender attitudes, specifically attitudes about intimate partner violence. The study builds on demographic research, especially studies of changing family patterns, which has long considered global ideational influences on individual-level attitudinal and behavior change (Cleland and Wilson 1987; Jayakody, Thornton, and Axinn 2008; Lesthaeghe 1983; Mason 1997; National Research Council 2001; Thornton 2001, 2005; Yount and Rashad 2008). The results show that recent increases in the rejection of intimate partner violence are consistent with the influence of diffusion of global cultural norms about violence against women. These findings provide evidence that global processes can influence the types of gender schema that are available to individuals and can play a role in shaping attitudes about those schemas.

Chapter 3, "Men's Gender Attitudes and HIV Risk," uses quantitative and qualitative data from a 2011 study in urban Malawi to examine the association between men's gender attitudes and their objective and subjective risk of HIV. Existing research on the link between gender attitudes and HIV is predominantly based on qualitative data. Previous studies have revealed that sexual behaviors are a common social domain for the enactment of masculinity schemas (Silberschmidt 2001; Williams 2003; Hunter 2005; Wyrod 2011). Some studies of gender schemas and HIV risk demonstrate that men who believe in male dominance in intimate

relationships and who believe that "real men" have lots of sex are likely to aspire to having multiple sexual partners as proof of their masculinity, thereby putting themselves and their partners at risk of HIV (Silberschmidt 2001; Walker 2005; Simpson 2007; Hunter 2010; Macia et al. 2011; Odimegwu et al. 2013). Other research highlights men who have reacted to evidence of the detrimental effects of HIV and violence against women by attempting to construct masculinity schemas rooted in equal gender relations (Morrell 2001; Sideris 2004; Lynch, Brouard, and Visser 2010; Dworkin et al. 2012). This existing research documents varying levels of endorsement of popular gender schemas, but few studies have quantitatively tested whether that variation is related to differences in sexual health outcomes. To fill that gap, the second empirical chapter draws on the tools of program implementers (Pulerwitz and Barker 2008; Barker et al. 2010) to quantitatively examine the relationship between gender attitudes and behaviors associated with HIV risk. The findings indicate that, as expected, Malawian men with more egalitarian gender attitudes engage less frequently in sexual behaviors implicated in HIV risk. The chapter also includes an examination of the relationship between gender attitudes and self-assessed HIV risk and finds that men with more egalitarian gender attitudes tend to feel less at risk of HIV. Overall, the findings are consistent with the expectation that gender schemas are relevant to studies of HIV risk behaviors, and to reproductive health more generally.

Chapter 4, " 'A Real Man is Recognized by What he Does': Schemas of Masculinity and Fertility," highlights the fact that the potential influence of masculinity schemas has been overlooked in fertility research. Using qualitative data from urban Malawi, this chapter investigates masculinity schemas as a source of cultural scripts available to guide men's fertility. The analysis documents three masculinity schemas that establish social expectations that are

relevant to fertility behaviors: men are expected to, 1) father at least one child; 2) deliver the financial means to feed, clothe, and school their children; and 3) be sexually active.
The chapter shows that contemporary masculinity schemas in urban Malawi contain elements that are relevant to men's fertility preferences and behaviors. The results suggest that greater attention to gender schemas could enhance our understanding of motivations for men's fertility preferences and behaviors.

Chapter 5 is the conclusion to the dissertation. It provides reflection on the broader lessons learned from each paper and offers suggestions for future research. The conclusion highlights the fact that the findings from each of the dissertation's empirical analyses inspire many additional research questions on the role and significance of gender schemas in social life.

Chapter 2

Increasing Rejection of Intimate Partner Violence: Evidence of Global Cultural Diffusion[1]

Introduction

A large literature explores the role of global norms in defining appropriate action for nation-states (Meyer et al. 1997). Most studies focus on changes to national policies in response to the transnational normative pressures of world society. This study extends world society theory by examining the diffusion of global norms to nonelite individuals. Normative global scripts, such as human rights, are not solely available to national governments. To the contrary, global norms also provide moralized guidelines for individual behavior (Meyer and Jepperson 2000). To capture the extent of world society's influence, it is important to go beyond studies of policy change.

Recent transnational advocacy and development programming on issues of violence against women provide an interesting and important case for examining the influence of world society on individual attitudes. This study examines trends in attitudes about intimate partner violence; this form of violence against women is commonly defined as "any behavior within an intimate relationship that causes physical, psychological, or sexual harm to those in the relationship" (Heise and Garcia-Moreno 2002:89). It often occurs in private as part of personal

[1] A version of this chapter appeared as: Pierotti, Rachael S. 2013. "Increasing Rejection of Intimate Partner Violence: Evidence of Global Cultural Diffusion." *American Sociological Review* 78(2):240-265.

relationships and, as such, may be particularly resistant to external pressures, which makes it a good case for examination of global influences. Also, norms about interpersonal relationships (as opposed to norms about institutional arrangements such as the structure of education systems) are relevant to all individuals, irrespective of social position. Finally, rapid dissemination of global norms about violence against women began in the mid-1990s and accelerated in the first decade of the 2000s. This timeframe means one can use recent survey data to examine whether attitudes became more consistent with world society's cultural scripts as those scripts were disseminated.

If dissemination of global norms is affecting individuals worldwide, the proportion of people who view intimate partner violence as legitimate should be declining. I test this hypothesis using nationally representative data on women's attitudes in 26 countries, all the countries for which relevant data were available at two time points. I then combine demographic theories and methods with world society theories about the dissemination of cultural scripts to derive and test explanations for aggregate-level trends in attitudes about intimate partner violence.

I find that within the first decade of the 2000s, women in 23 of 26 countries became more likely to reject intimate partner violence as a justifiable form of social control. Moreover, this aggregate trend was due to a rapid increase in the likelihood of rejecting intimate partner violence among women of all ages, women with various levels of education and access to media, and women in urban and rural areas. This suggests the change was mostly due to the wide dissemination of global cultural scripts. Structural socioeconomic and demographic shifts in the population account for little of the observed trend.

Conceptual Framework

World society theory holds that the global arena is more than political and economic exchanges among states (Meyer et al. 1997). *World society* is a distinct social space constituted by interactions among transnational actors, especially intergovernmental organizations, such as the United Nations, and international nongovernmental organizations (NGOs), including advocacy groups, professional associations, and charities with global reach (Boli and Thomas 1997; Merry 2006). World society actors are influential because of their ability to define and promote new cultural scripts and models of policy and activism (Keck and Sikkink 1998). Global cultural scripts draw on fundamental principles of world society to define appropriate behavior for individuals, organizations, and nation-states (Boli and Thomas 1997; Meyer and Jepperson 2000).

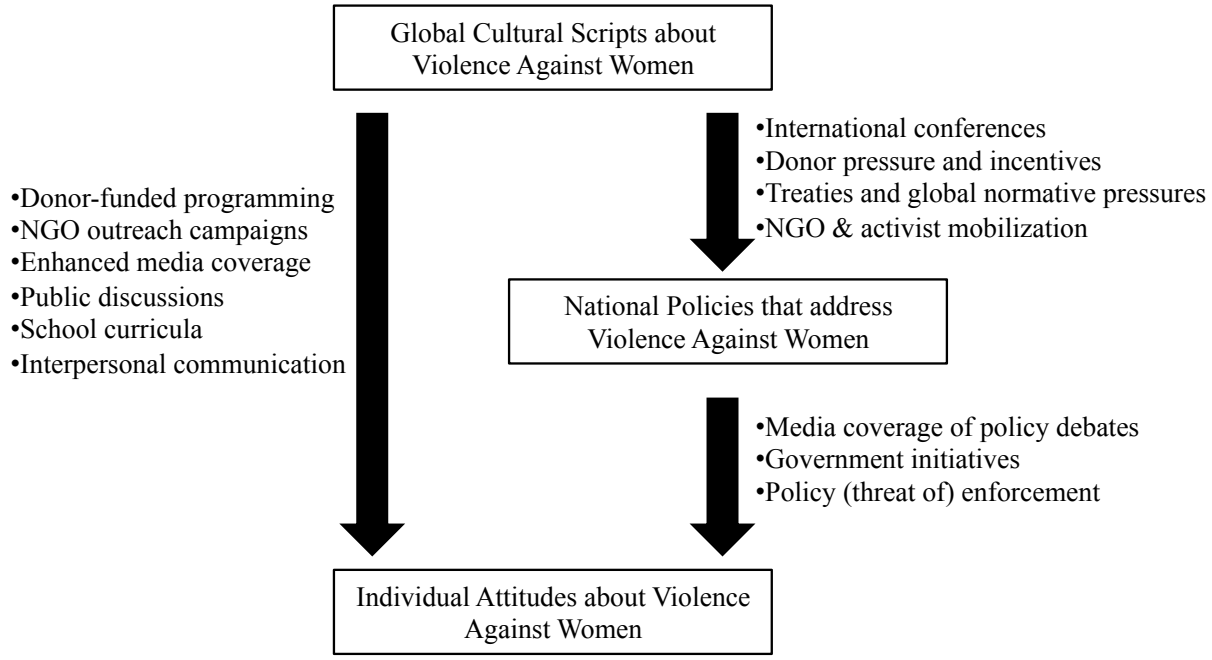
Scholars have documented evidence of the influence of global models on a variety of national policy domains: human rights (Hafner-Burton and Tsutsui 2005; Koo and Ramirez 2009), democracy (Torfason and Ingram 2010), environmental protection (Frank, Hironaka, and Schofer 2000), education (Meyer, Ramirez, and Soysal 1992), population (Barrett and Tsui 1999), women's labor force participation (Berkovitch 1999a), women's voting rights (Ramirez, Soysal, and Shanahan 1997), women's political participation (Paxton, Hughes, and Green 2006), gender mainstreaming (True and Mintrom 2001), female circumcision (Boyle and Preves 2000), and criminal regulation of sex (Frank, Camp, and Boutcher 2010). In each of these domains, access to global models proves a powerful predictor of national policy action. Moreover, dissemination of global cultural scripts explains increasing worldwide isomorphism in these policy domains.

The analysis presented here pushes beyond existing studies of policy change by testing whether individual-level attitudinal change is also consistent with the influence of global cultural scripts. Case studies from around the world demonstrate the complexities of when and how global norms are adopted, resisted, modified, and rejected by local actors working within their own cultural logics (Boyle 2002; Levitt and Merry 2009; Rubtsova 2011). These studies add great depth to our knowledge of the social processes that accompany the introduction of new cultural scripts. What the case study approach cannot detect, however, are broad trends that correspond with the articulation and diffusion of global cultural scripts (Frank, Hardinge, and Wosick-Correa 2009). That is the goal of this research. If world society norms exert power at the individual level as they do at the national policy level, we would expect the diffusion of global cultural scripts to produce relatively rapid changes in individual attitudes.

Demographic research, especially studies of changing family patterns, has long considered global ideational influences on individual-level attitudinal and behavior change (Cleland and Wilson 1987; Jayakody, Thornton, and Axinn 2008; Lesthaeghe 1983; Mason 1997; National Research Council 2001; Thornton 2001, 2005; Yount and Rashad 2008). The demographic literature describes mechanisms for the diffusion of global family models, including urbanization, education, and mass media, along with NGO outreach, government initiatives, development programs, and religious institutions (Thornton 2005). Scholars have also documented the role of these mechanisms in disseminating messages about women's rights (Berkovitch 1999a; Merry 2006). I bring together world society theory and demographic theory about the diffusion of cultural models to derive hypotheses about aggregate-level trends in attitudes about intimate partner violence.

Figure 2.1 depicts the theorized pathways of influence linking global cultural scripts with individual attitudes. Diffusion mechanisms connect global cultural scripts directly to individuals and operate indirectly through national political actions. The dramatic growth in the number of women's international NGOs and their efforts at cultural diffusion are largely credited with linking the global and the local (Berkovitch 1999b). In this model, both national policy and individual attitudes are affected by the diffusion of global cultural scripts. Attitudinal changes may be bolstered by policy action, but they do not depend on national legal changes.

Figure 2.1: Pathways of Influence: Global Cultural Scripts to Individual Attitudes



I simplified the model to emphasize the object of this study, and this requires some clarification. First, I build on the research described earlier that examines the influence of global models. The focus on vertical diffusion is not meant to deny that both policymakers (Chimbwete, Watkins, and Zulu 2005) and individuals (Boyle and Carbone-Lopez 2006; Htun and Weldon 2012) have agency in shaping the dissemination and interpretation of global cultural scripts.

Second, the present study does not include direct measures of individual links to world society and does not test the relative importance of each of these mechanisms. These mechanisms operate differently in different places. The effect of laws, for example, will vary depending on the socio-legal context and the salience of the formal legal system in people's lives (Longhofer and Schofer 2010). Testing these mechanisms is outside the scope of this study, but I discuss them because they inform the hypotheses presented below.

World Society Discourse and National Policies on Violence Against Women

In the community of transnational women's rights activism, violence against women is conceptualized as a human rights violation that results from and reinforces systems of gender inequality (United Nations 2008). Violence against women encompasses social practices such as intimate partner violence, sexual violence, sexual harassment, female circumcision, early or forced marriage, and human trafficking. Depicting violence against women as a unified category of meaning facilitates the interpretation of each social practice through the lens of gender inequality and women's rights. For example, in the case of intimate partner violence, advocacy messages declare that wife beating is a rights violation that is never justified.

The definition of violence against women is a cultural product; it is based on fundamental principles of world society, including universalism, liberal individualism, and equality (Berkovitch and Bradley 1999; Boli and Thomas 1997). National and international elites are encouraged to support the new legal and institutional structures because of the association between human rights and gender equality on the one hand, and modernity and development on the other hand (Berkovitch 1999a; Luke and Watkins 2002; Thompson 2002; Thornton 2001). Feminist movements in Western countries are an important source of legitimating ideology and

funding for efforts to highlight violence against women as a transnational issue. Global inequalities affect the construction of the definition of violence against women, but the current influence of global cultural norms cannot be reduced to the unilateral imposition of Western values. Dissemination of global cultural scripts depends on the participation of activists all over the world who vernacularize the global models into language that makes sense in each local context (Merry 2006).

The dominant definition of violence against women is enshrined in transnational agreements and national laws. In 1979, the General Assembly of the United Nations adopted the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW), which demanded changes not only in states' practices, but also required states to ensure private entities in economic and social life did not discriminate against women (Thompson 2002). This declaration opened the door to discussions about violations of women's rights in the private sphere.

The debate about violence against women found its full expression at the 1994 International Conference on Population and Development in Cairo and the 1995 Fourth World Conference on Women in Beijing. At the Cairo conference, gender equality and women's rights were promoted on an international stage as key components of improving reproductive health. The Beijing conference built on the success of Cairo and produced a Platform for Action proclaiming that violence against women is a violation of women's human rights (Tinker 2004).

In 2008, United Nations Secretary-General Ban Ki-moon launched a campaign called UNiTE to End Violence against Women. The campaign website called violence against women a "global pandemic" and quoted the Secretary-General saying, "there is one universal truth, applicable to all countries, cultures and communities: violence against women is never

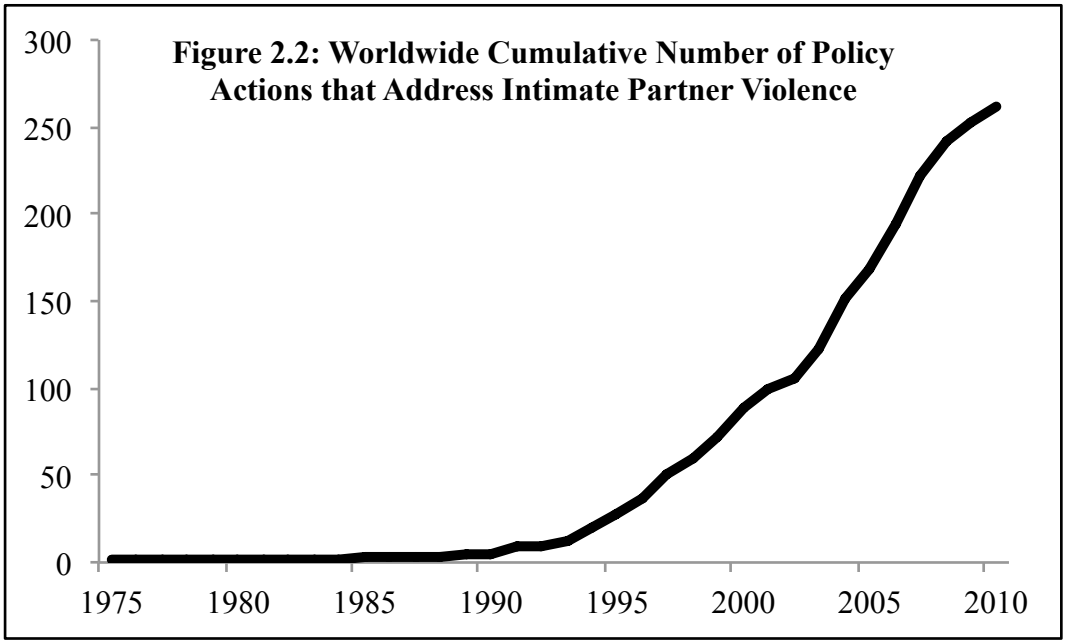
acceptable, never excusable, never tolerable" (UNiTE 2012). Global prominence of the issue of violence against women has been increasing ever since the 1994 and 1995 conferences in Cairo and Beijing. Transnational activists and policymakers share well-established cultural scripts defining the problem, its scope, and its solutions.

Evidence of the worldwide influence of global cultural scripts about violence against women is seen in patterns of national legal change. One study of rape law reform found that global forces propelled a wave of recent changes to rape laws (Frank et al. 2009). The changes reflected global norms that categorize rape as a violation of individual liberty, rights, and equality. Another study credited global forces with inducing national governments to criminalize female circumcision (Boyle and Preves 2000).

I gathered information from the United Nations Secretary-General's online database on violence against women to examine whether there is also a global pattern in the enactment of national policies addressing intimate partner violence.[2] The findings, presented in Figure 2.2, are striking. Since 1975, 119 different countries worldwide have enacted approximately 260 national-level legal changes—new legislation, amended legislation, executive decrees, and constitutional provisions—to address intimate partner violence. Nearly 95 percent of those changes occurred since the 1995 Beijing conference.[3] Worldwide similarity in the timing of these reforms is noteworthy. The trend suggests that national governments across the globe responded to pressures and incentives to address violence against women.

[2] The online database is located at http://webapps01.un.org/vawdatabase/about.action. I collected information from the database from November 2011 through February 2012.

[3] Although it is plausible that reporting of national policies regarding violence against women improved as global attention to this issue grew, it is unlikely that the dramatic increase in the number of policy actions can be entirely explained by changes in reporting practices.



All countries included in the present study implemented legal or policy changes since 1995 to prohibit, prevent, or punish violence against women. Twelve countries enacted new legislation specific to addressing intimate partner violence: Bolivia (1995), Cambodia (2005), Dominican Republic (1997), Egypt (1998), Ghana (2007), India (2006), Indonesia (2004), Malawi (2006), Nepal (2009), Turkey (1998), Uganda (2009), and Zimbabwe (2007). Another 10 countries passed legislation or amended existing legislation regarding other forms of violence against women: Armenia (2003), Benin (2003, 2006), Ethiopia (2004), Kenya (2006), Madagascar (2000, 2005), Philippines (2004), Rwanda (2008), Senegal (1999), Tanzania (1998), and Zambia (2005). In Haiti (2008), Jordan (2004), Mali (2006), and Nigeria (2007), national governments have gotten as far as issuing policies regarding violence against women.

In summary, during the late 1990s and the first decade of the 2000s, cultural scripts that identified violence against women as a human rights violation became increasingly institutionalized within world society. A variety of world society actors, including NGOs and intergovernmental organizations, disseminated this cultural script. The dramatic expansion of

policies addressing violence against women is evidence of the broad diffusion and national-level influence of this global cultural script. In the analyses that follow, I examine whether individual attitudes also became more consistent with global cultural scripts during this time period. In so doing, I test whether world society theory can be usefully applied to understanding trends in individual attitudes.

Global Norms and Individual Attitudes

The analysis has three parts. I begin by investigating patterns in attitudinal trends. Second, I test mechanisms of diffusion of global cultural scripts as predictors of individual attitudes in cross-sectional analyses. Finally, I examine several potential explanations for the aggregate trends. In this section, I present hypotheses for each part of the analysis.

Aggregate Trends

First, I examine whether individual attitudes are becoming more consistent with cultural scripts of world society. Despite international elites' and national policymakers' heightened attention to violence against women, it is conceivable that global cultural scripts never reach nonelite women who are not engaged in transnational activism. Existing literature leads to skepticism regarding individual access to global cultural scripts. World society scholars have documented decoupling between national policies based on global cultural models and implementation of those policies (Meyer et al. 1997). Furthermore, in legally pluralistic societies, such as many of the countries in this study, the formal legal system or transnational principles of human rights may not be salient cultural frameworks in people's everyday lives.

In world society, the consensus is that a husband's physical abuse of his wife is part of a broader social system that reinforces gender inequality. For individual survey respondents, however, the meaning of violent acts may be affected by more immediate concerns, such as the interactional context and individual behaviors (Heise 1998). If individuals are unaware of the global discourse about violence against women or find it irrelevant to their lives, there is no reason to anticipate consistent trends in attitudes about intimate partner violence.

On the other hand, global norms may have symbolic power, independent of national governments' translation of those norms. National and international discourse may be a cultural resource, enabling individuals to change how they perceive and evaluate violent acts. As Levitt and Merry (2009:447) note, "that women's rights are codified into law endows them with authority and connects them to the state, even though few women turn to formal legal arenas to redress their grievances." Local elite activists gain legitimacy and access to resources by using global norms to justify their work (Tsutsui and Shin 2008); these activists then further disseminate global cultural scripts.

Moreover, access to global norms about violence against women is facilitated by the work of many types of actors. Education systems, media, international donor programming, NGOs, and religious organizations also disseminate global cultural scripts. NGOs and development programs distribute printed materials, sponsor public discussions, and offer training to local professionals and community groups on issues of gender equality and violence against women. For example, during 2005 to 2007, a United States Agency for International Development (USAID) women's rights program in Benin printed and distributed 15,000 booklets explaining women's rights, placed 2,000 posters about women's rights in city halls, produced films on women's rights and broadcast them to an estimated 20,000 individuals,

reached nearly 7,000 people through public meetings in rural communities, and trained local paralegals, health professionals, civil authorities, and teachers (USAID Women's Legal Rights Initiative 2007). This example is only one of many such development programs during the past decade.

As described earlier, the diffusion of global cultural scripts about violence against women began in earnest in the late 1990s and intensified throughout the 2000s. With the widespread diffusion of global cultural scripts, I hypothesize that individual attitudes are becoming more consistent with prescriptions of world society:

> *Hypothesis* 1: Within each country, women are more likely to reject intimate partner violence in the mid- to late-2000s than earlier in that decade.

After testing this hypothesis, additional sensitivity analyses will assess whether attitudinal trends were similar among married and unmarried women, and among men.

Mechanisms of Diffusion: Predictors of Attitudes about Intimate Partner Violence

World society theory predicts that people most closely connected to the global institutional environment will be most likely to reflect the values promoted in that environment (Meyer 2010). Previous research in sub-Saharan Africa on attitudes about intimate partner violence confirms this prediction: on average, people in urban areas, those with more education, and those with greater access to media are more likely to reject intimate partner violence (Uthman, Lawoko, and Moradi 2009). If the dissemination of global norms about violence against women is at least partly responsible for individual attitudes, we should find a cross-sectional association

between access to messages emanating from the world cultural environment and attitudes about intimate partner violence.

I test the influence of three mechanisms of global norm diffusion: urban residence, education, and access to media. Urban centers are often sites of social change (Ryder 1965). Residents of urban areas are more likely to be familiar with global norms because of their relative proximity to the elite organizations and individuals who disseminate those ideas. Also, people in urban areas live in socially heterogeneous environments and are exposed to a wide variety of life styles in terms of social class, cultural and religious orientations, and political ideologies. Access to education and media has similar effects of expanding horizons and increasing exposure to global scripts (Hornik and McAnany 2001). In many countries, messages about women's rights, gender equality, and problems of violence against women are explicitly discussed in school curricula and in media programming.

> *Hypothesis 2*: Individuals with greater access to global discourse through urban residence, education, or access to media are more likely to reject intimate partner violence than those with more limited access to the global discourse.

Explanations for the Aggregate Trend

From theories of diffusion, demographers have proposed two explanations for aggregate-level trends in attitudes: attitudinal shifts within existing population groups and changes in population composition (Firebaugh 1992). Changes within population groups are consistent with widespread diffusion of cultural models and rapid aggregate-level change. Population compositional changes occur as some subgroups grow in relative size and become a larger proportion of the population. Attitudinal trends due to population compositional shifts are the result of more narrow cultural

diffusion and should produce more gradual change. Analyses of the demographic processes driving attitudinal change thus provide further tests about whether these trends are consistent with the widespread influence of global cultural scripts.

I take two approaches to understanding attitudinal trends. First, I investigate the extent to which changes in population composition—in terms of urban living, education, and media access—explain the change in attitudes about intimate partner violence. Second, I examine how much of the observed trend is due to attitudinal changes within birth cohorts measured in both survey waves versus change due to replacement in the survey population of older cohorts by younger cohorts, who are more likely to reject intimate partner violence.

Increasing urban living, education, and media access. Assuming that tests of Hypothesis 2 show that people in urban areas with more education and media access are more likely to reject intimate partner violence, the next question is to what extent changes in population composition account for the aggregate-level trend in attitudes about intimate partner violence. Most of these countries' populations are becoming more urban and have increasing access to education and media. Some of the observed changes in attitudes, therefore, may result from changing population composition.

Although I expect changes in urban living, education, and media access to explain some of the attitudinal change, I anticipate that the broad dissemination of global cultural scripts produced a shift in attitudes that is greater and more rapid than what is explained by population compositional changes. Urban living, education, and media access increase exposure to global norms, but these are not the only ways of gaining access to global cultural scripts. Messages are also disseminated through personal networks and diffused through many other mechanisms by agents of world society. These efforts to diffuse global norms have the potential to lead to

attitudinal change *within* population groups defined by place of residence, education, and media access—change that is above and beyond shifts due to differences in population composition. Tests of this hypothesis will evaluate whether patterns of attitudinal change are consistent with relatively broad dissemination of global cultural scripts.

> *Hypothesis 3*: Within-population group attitudinal shifts explain most of the change in the percent of women who reject intimate partner violence. Increased urban living, education, and media access (compositional change) explain only a small part of the aggregate trend.

Within-cohort change and cohort replacement. Social scientists often look to cohort replacement as an explanation for social change (Alwin 1990; Lesthaeghe and Surkyn 1988; Ryder 1965). Cohort replacement suggests that social change occurs as younger generations with distinct beliefs and values replace older generations in the population. A main assumption of cohort replacement theory is that individuals' attitudes are formed early in life and remain relatively stable over their life course.

An alternative model of social change assumes that individuals change their attitudes as adults (Alwin 1990). That adults may change their opinions is the operating assumption of activists and development practitioners who expend resources attempting to change how individuals think about violence against women. This is within-cohort change and it may result from aging—as respondents get older their opinions change—or from period effects—if there is something different about later periods that causes people to change their opinions.

Transnational dissemination of global cultural scripts about violence against women influences both the context in which new generations are socialized and the cultural context in which already socialized adults make meaning of their actions and interactions. I hypothesize

that both types of change will be operative, but within-cohort change will explain more of the observed trend. If the cause of the aggregate-level trends were limited to cohort replacement, it would mean either that only young people have exposure to global cultural scripts on violence against women (perhaps through school), or that only young people are receptive to those messages. Given the variety of mechanisms of diffusion of global cultural scripts, I expect people of all ages to have access to those scripts. And, while it is conceivable that older women are somewhat more resistant to external cultural influences, global cultural scripts should be powerful enough to influence people during all periods of the life course.

> *Hypothesis 4*: Within-cohort attitudinal shifts explain most of the change in the percent of women who reject intimate partner violence. Cohort replacement explains only a small part of the aggregate trend.

Data

Data for this study come from 52 Demographic and Health Survey (DHS) datasets, including two from each of 26 countries.[4] All countries with two waves of DHS data on women's attitudes about intimate partner violence are included in the analysis. These countries are Armenia, Benin, Bolivia, Cambodia, Dominican Republic, Egypt, Ethiopia, Ghana, Haiti, India, Indonesia, Jordan, Kenya, Madagascar, Malawi, Mali, Nepal, Nigeria, Philippines, Rwanda, Senegal, Tanzania, Turkey, Uganda, Zambia, and Zimbabwe. Half of the countries with data meeting the inclusion criteria are in sub-Saharan Africa. As such, inclusion or exclusion of variables and models from the analyses is largely driven by their relevance in the African context. Nonetheless,

[4] DHS data are available for download at http://www.measuredhs.com/data/.

although not representative of the globe, these data come from a wide range of low- and middle-income countries.

The datasets come from nationally representative, repeated cross-sectional surveys. In each country, the first wave of data collection was in the early- to mid-2000s and the second was in the mid- to late-2000s. For most countries, the two waves of data collection were five years apart. The shortest interval between waves was three years in Egypt and the longest was seven years in India. Table 2.1 shows survey years and sample sizes for each of the 26 countries. The timing of these data collections corresponds with the period of increasing global attention to issues of violence against women.[5]

Sampling for each DHS study was conducted by randomly selecting primary sampling units (PSUs) and then randomly sampling households within selected PSUs. In most countries, all women between the ages of 15 and 49 years were eligible to participate. In Egypt, India, Indonesia, Jordan, Nepal, and Turkey, only ever-married women were eligible.[6] This inconsistency in sampling is one reason results are comparable within country and across time but not across countries. All analyses use sampling weights to adjust for variation in the probability of selection.

[5] Ideally, wave 1 data for each country would have been collected before the diffusion of global scripts about violence against women, but such data are not available. The collection of data on attitudes about violence against women is itself part of world society activism on this issue. Despite the timing of data collection, however, it is clear that violence against women gained prominence at the level of world society before there was coordinated worldwide mobilization at the national and individual levels. Following institutionalization of the issue of violence against women in world society, local activism began influencing national and international responses, but the development and dissemination of a global cultural script facilitated this local mobilization.

[6] In cases where the sample consisted of all women in one wave and ever-married women in the other wave, I restricted samples from both waves to ever-married women for the present analysis.

Table 2.1: Survey Years and Sample Sizes

	Wave 1		Wave 2	
	Year	Sample Size	Year	Sample Size
Armenia	2005	6,566	2010	5,922
Benin	2001	6,219	2006	17,794
Bolivia	2003/04	17,654	2008	16,939
Cambodia	2005/06	4,168	2010/11	18,754
Dominican Rep.	2002	23,384	2007	27,195
Egypt	2005	19,474	2008	16,527
Ethiopia	2000	15,367	2005	14,070
Ghana	2003	5,691	2008	4,916
Haiti	2000	10,159	2005/06	10,757
India	1998/99	90,303	2005/06	93,724
Indonesia	2002/03	29,483	2007	32,895
Jordan	2002	6,006	2007	10,876
Kenya	2003	8,195	2008/09	8,444
Madagascar	2003/04	7,949	2008/09	17,375
Malawi	2000	13,220	2004/05	11,698
Mali	2001	12,849	2006	14,583
Nepal	2001/02	8,726	2006/07	8,640
Nigeria	2003	7,620	2008	33,385
Philippines	2003	13,633	2008	13,594
Rwanda	2000	10,421	2005	11,321
Senegal	2005	14,602	2010/11	15,688
Tanzania	2004/05	10,329	2010	10,139
Turkey	1998	6,152	2003/04	8,075
Uganda	2000/01	7,246	2006	8,531
Zambia	2001/02	7,658	2007	7,146
Zimbabwe	1999	5,907	2005/06	8,907

Dependent Measure

The outcome variable derives from a question that asked respondents whether it is okay for a man to hit or beat his wife under certain circumstances. Specifically, the most common form of the question asked, “Sometimes a husband is annoyed or angered by things which his wife does. In your opinion, is a husband justified in hitting or beating his wife in the following situations?” The five scenarios presented to respondents were (1) if she goes out without telling him, (2) if she neglects the children, (3) if she argues with him, (4) if she refuses to have sex with him, and (5) if she burns the food. Given the sensitive nature of this survey question, differences in question wording have the potential to influence the distribution of responses. Based on research

by Yount and colleagues (2011), I conducted an analysis of question wording and determined that small differences across surveys in eight countries could not account for the observed trends.[7] Moreover, the findings presented below do not depend on the inclusion of the countries with question wording differences.

There is some variation between countries, however, in the scenarios presented as potential justification for intimate partner violence. To ensure comparability within country and across time, only scenarios that were asked in both waves of data collection were included in the dependent variable. The dependent variable should not be compared across countries, however, because the scenarios are not the same in each country. The standard scenarios (listed earlier) were used in the dependent variable for 20 of the countries.[8]

Examining trends in responses to each scenario individually provides interesting information about shifting criteria for the establishment of just cause for violence (Heise 1998). In this analysis, however, I am interested in the degree to which attitudes conform to global norms about violence against women, which emphasize rejection of all justifications for violence. For that reason, I created a dichotomous dependent variable that indicates whether the respondent broadly rejects wife beating. This variable is coded 1 for respondents who rejected all scenarios suggested by the survey interviewer as reasonable justification for a husband to beat

[7] There are small question wording differences across waves in eight countries. Based on Yount and colleagues' (2011) findings, the wording differences may be causing an underestimate of the change over time in the Dominican Republic, India, and Turkey. Wording differences could be the source of some overestimation of the change over time in Rwanda and Senegal, although effects are likely to be small. Because of small sample sizes, Yount and colleagues (2011) were unable to estimate effects of the across-time wording variation found in Benin, Haiti, and Mali, although these effects are also likely to be small. (Analysis available from the author.)

[8] The India surveys excluded the third and fourth standard scenarios and included the following two scenarios instead: if she shows disrespect for in-laws and if he suspects her of being unfaithful. The Jordan surveys excluded the fourth standard scenario and included the following two additional scenarios: if she insults him and if she disobeys him. Nigeria included one extra scenario in both waves: if the food is not cooked on time. The first standard scenario was not asked in Turkey; instead, a scenario asked if she wastes money. Finally, in Cambodia the fifth scenario was excluded and in Zambia the first scenario was excluded, both because of variation in the wording of the scenario across survey waves.

his wife and 0 otherwise.[9] For the sake of brevity, I will interpret this throughout the analysis as a rejection of intimate partner violence. Note that this is an over-simplification; some respondents may reject all of the suggested justifications but may believe there are other instances in which a husband is justified in beating his wife. Across the 52 datasets, an average of 51 percent of respondents rejected all scenarios. To ensure results are not an artifact of the dependent variable coding, I also conducted analyses using an additive scale (0 to 5) for the number of scenarios that a respondent deemed reasonable justification for intimate partner violence. Results (not shown) are largely consistent across specifications of the dependent variable.

Predictors of Attitudes about Intimate Partner Violence

The analyses require measures of several demographic characteristics. Urban residence, educational attainment, and media access are the three main variables of interest. Urban living is a dichotomous variable defined by the survey teams in each country. Educational attainment is coded as a categorical variable that captures the highest level of schooling attended by the respondent: no schooling, primary, secondary, or higher. Media access is a composite measure of access to newspapers, radio, and television. Respondents who came in contact with newspapers, radio, or television at least once per week were given a code of 1 for access to media. Respondents with less frequent access were coded 0.

In addition to the main predictors, I tested several other variables for a relationship with attitudes about intimate partner violence. First, I included continuous measures of age and age-squared in each model as controls. The analysis of cohort replacement closely examines the

[9] To be conservative, only respondents who answered no to each question were assigned a 1 on this dependent variable. Respondents who said "don't know" in reply to any of the scenarios were coded 0.

effect of age on attitudes about intimate partner violence. I also investigated the role of wealth. Wealth may increase access to national and international elites who participate in global culture and provide means for social engagement outside the home. Wealth may therefore serve as an additional mechanism of diffusion of global culture.

Given the populations under study, it is difficult to measure wealth, and available measures indicate a large amount of clumping on the poor end of the wealth scale, especially in Africa (Vyas and Kumaranayake 2006). The DHS does not include income or expenditure data; instead, the surveys collect information on household characteristics and household assets. Following Filmer and Pritchett (2001), I used principal components analysis (PCA) to construct wealth indices for each survey sample. Given the available measures, however, the resulting index was highly correlated with urban living. Among the African countries, the correlation between the wealth score and urban residence ranged from a low of .55 in Benin to a high of .86 in Ethiopia. Because the wealth index is not a great measure, and because it is highly correlated with urban living, I ultimately dropped it from the multivariate analyses.

Religious leaders and organizations are a common source of cultural scripts, so I included a dichotomous variable to indicate whether a respondent identified as Muslim. Empirical evidence suggests there are substantial cultural differences between Muslim and non-Muslim societies on issues of gender equality (Norris and Inglehart 2002). I included this as a control rather than a variable of primary interest, however, because religious context varies substantially across the countries in this analysis and because it is beyond the scope of this article to examine the complex relationship between religion and cultural scripts about gender.

A final set of control variables measure women's status within marriage, which may also be associated with attitudes about intimate partner violence. Women who have never married

may be more independent and less tolerant of intimate partner violence than their married peers. In countries with data from all women, I coded women who have ever been married as 1 and those who have never married as 0.

Women who are relatively dependent on their marital relationship for their livelihoods may be more tolerant of abuse than women with more power in their relationship. Previous research in low-income countries has found that women who marry at young ages and women who have fewer years of schooling than their husbands are more likely to justify intimate partner violence (Kishor and Subaiya 2008; Yount 2005; Yount and Li 2009). Women who marry young generally complete fewer years of school, have less say in choosing their spouse, and have less time to form a sense of self outside of their marital relationship. Women with lower levels of education than their husbands may have relatively lower bargaining power within their relationship, making them more dependent and more likely to justify intimate partner violence.[10]

I treated women's age at marriage as a categorical variable, dividing ever-married women into those who were first married at age 15 years or younger, those married between age 16 and age 19, and those married at age 20 or older. I tested several specifications for capturing educational gaps between wives and husbands. A variable with three categories—husband and wife have the same level of education, husband attended a higher level of education, wife attended a higher level of education—captured the most meaningful variation among respondents. A separate variable for husbands' education was coded the same way as the respondent's educational attainment variable.

[10] Researchers have also found mixed evidence of an association between spousal age differences and attitudes about intimate partner violence (e.g., Kishor and Subaiya 2008). In the data used here, there was only a weak association between spousal age gaps and attitudes about intimate partner violence. For the sake of parsimony, I dropped this variable from the analysis.

Unfortunately, direct measures of individual access to global cultural scripts, or the influence of those scripts, are not available in large national samples from many countries. Therefore, I cannot test the direct influence of world society on individual attitudes. As detailed in the previous section, however, I have the data to investigate whether world society theory may be applied to explain the observed trends in attitudes about intimate partner violence. The next section describes how I test each of the hypotheses described earlier.

Analytic Plan

Hypothesis 1. The first part of the analysis describes the trends in attitudes about intimate partner violence. To examine Hypothesis 1, I used adjusted Wald tests to analyze whether there was a statistically significant change between the first and second waves in the proportion of respondents in each country who reject intimate partner violence.

Hypothesis 2. To test Hypothesis 2, I examined predictors of rejection of intimate partner violence. I used chi-square tests to examine the bivariate relationship between each predictor variable and rejection of intimate partner violence (results available from author). I then tested the multivariate relationship between the predictor variables and rejection of intimate partner violence using logistic regression.

Hypothesis 3. The next part of the analysis examines the extent to which aggregate-level trends in attitudes about intimate partner violence are explained by shifts in population composition. I used direct standardization to examine how much of the change over time was due to increases in urban living, educational attainment, and media access. Direct standardization allows for estimation of a counterfactual scenario: What percent of the population in wave 2 would have rejected intimate partner violence if attitudes about intimate partner violence had

remained unchanged but the population composition had shifted? For each survey wave in each country, I divided the population into subgroups by urban/rural residence, highest level of education attended, and media access/no access. This resulted in a distribution of respondents across 16 subgroups. For each subgroup, I estimated the percent who rejected intimate partner violence (rate of rejection). Standardization showed whether the percent who reject intimate partner violence in the population would have changed if the rate of rejection for each subgroup had remained the same. So, for each country, I multiplied the subgroup distribution from wave 2 by the rates of rejection from wave 1.

Hypothesis 4. The final part of the analysis tests how much of the change in population averages on the dependent variable can be explained by within-cohort change and how much can be explained by cohort replacement. To do this, I used linear regression decomposition (Firebaugh 1989). This model estimates change due to cohort replacement net of within-cohort change (the combined effects of age and period) and vice versa. For each country, I pooled the two waves of data and regressed my outcome variable on survey year and respondent's birth year:

$$y = b_0 + b_1 \text{ survey year} + b_2 \text{ birth year} + e$$

The slopes from this regression equation represent the expected change in the percent of respondents who reject intimate partner violence (y) for every one-year increase in survey year or mean birth year. For each country, I multiplied the slopes from the regression by the actual

change in survey year and mean birth year.[11] The elapsed time between survey years and the difference in mean birth year was approximately five years for each country. This produced estimates of the within-cohort and cohort replacement components of the change in the percent who reject intimate partner violence:

Within-cohort change = b_1 (wave 2 survey year – wave 1 survey year)
Cohort replacement = b_2 (mean birth year in wave 2 – mean birth year in wave 1)

This method assumes that the two components are orthogonal and that the effects are linear. I examined the reasonableness of these assumptions by testing how closely the predicted change from the two components sum to the actual observed change.

Results

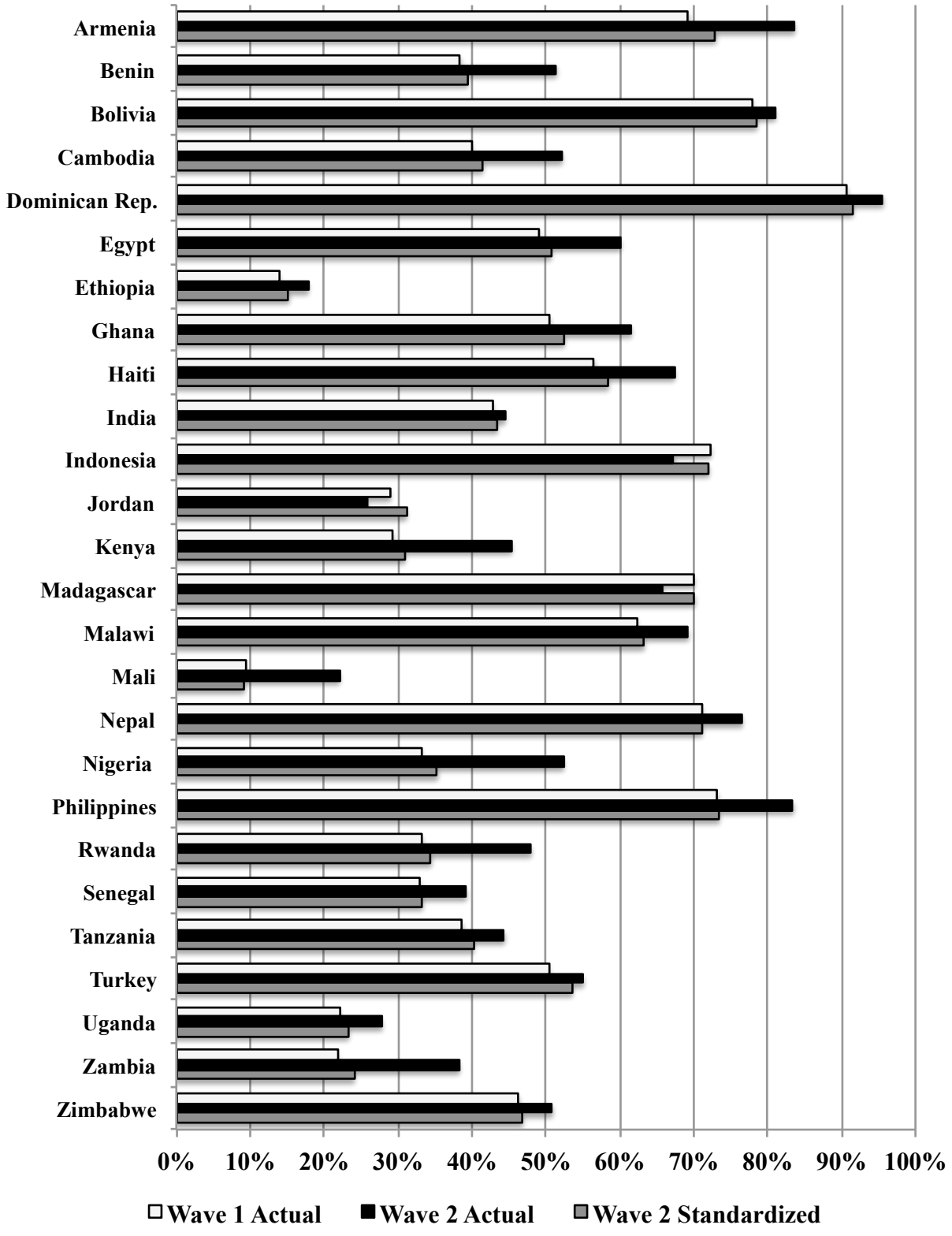
Aggregate Trends

The data show striking changes in the proportion of women in each country who reject intimate partner violence. The changes are impressive because of the nearly uniform direction of the trend and their magnitude within a span of only five years. Figure 2.3 shows the proportion of women who reject all justifications for intimate partner violence in each survey wave for each country: the top bar is the percent in wave 1 and the middle bar is the percent in wave 2. (The standardized wave 2 bar will be discussed below.) The change is statistically significant at $\alpha = .05$ in all countries. In 23 out of 26 countries, there is a significant increase in the proportion of women rejecting intimate partner violence. Twelve of the countries saw more than a 10-

[11] I also conducted this analysis by estimating the marginal effects from a logistic regression and using the marginal effects in place of the coefficients from OLS regression. Results were the same, so I opted to include the OLS regression methodology and results for ease of interpretation.

percentage point increase in the rate of rejection. Nigeria had the largest change, with a 19-percentage point increase in the proportion of women who reject intimate partner violence, followed by Zambia, Kenya, Rwanda, and Armenia with approximately 15-percentage point increases in the rejection of intimate partner violence.

Figure 2.3: Percent who Reject All Justifications for Intimate Partner Violence



India, Bolivia, and Ethiopia had the smallest increases in rates of rejection, but the changes are all still statistically significant and in the expected direction. Indonesia, Jordan, and Madagascar are clear outliers. Those three countries had a statistically significant decrease in the proportion of women who reject intimate partner violence.

When examining responses by survey year for each scenario incorporated into the outcome measure, the detailed story is largely the same as the picture in Figure 2.3. Twenty countries had significant decreases in the acceptability of at least three of the scenarios as justification for intimate partner violence. In Turkey, Uganda, and Zimbabwe, the trend appears to be more tenuous. The trend is in the opposite direction for three or four of the scenarios in Indonesia, Jordan, and Madagascar.

Additional tests examined whether trends were similar among women who had married and those who had not, as well as among men. In all countries where both ever- and never-married women were surveyed, the observed trend was in the same direction and of similar magnitude regardless of marital status (results not shown). I used two waves of data available for men's attitudes about intimate partner violence for 15 of the countries included in this study. Trends among men mirror those among women. Twelve countries had significant and substantial increases in the percent of men rejecting intimate partner violence. In the Dominican Republic, there was no significant change in the percent of men rejecting intimate partner violence. In Indonesia and Madagascar, as among women, there was a significant decrease in the percent of men rejecting intimate partner violence.

Overall, I find a great deal of support for Hypothesis 1. With the exception of Indonesia, Jordan, and Madagascar, women were substantially more likely to reject intimate partner violence in the more recent wave of data collection. These substantial changes occurred over a

span of only five years, and the observed change was comparable among women who have ever married and those who have not, as well as among men. The trend in attitudes about intimate partner violence is converging toward the global cultural script that prescribes the rejection of violence against women.

Mechanisms of Diffusion: Predictors of Attitudes about Intimate Partner Violence

Next, I examine whether people with greater access to global cultural scripts are more likely to endorse the values embedded in those scripts. I tested three primary mechanisms linking individuals to global cultural scripts as predictors of women's attitudes about intimate partner violence: urban residence, education, and media access. Tables 2.2a and 2.2b present results of multivariate logistic regression as odds ratios. These models tested the significance of the three mechanisms of diffusion simultaneously, while controlling for survey wave, Muslim identity, age, age-squared, marital status, age at marriage, and husband's education. The first coefficient in the top left of the first table means that in Armenia, women in wave 2 had 1.99 greater odds of rejecting intimate partner violence than did women in wave 1, controlling for the other factors in the model.

Table 2.2a: Predictors of Rejection of Intimate Partner Violence (Odds Ratios)

	Armenia	Benin	Bolivia	Cambodia	DR	Egypt	Ethiopia	Ghana	Haiti	India	Indonesia	Jordan	Kenya
Wave 2	1.99***	1.73***	1.15**	1.62***	2.04***	1.56***	1.25**	1.48***	1.45***	1.05	0.78***	0.76***	1.99***
Urban	1.67***	1.62***	1.24***	1.74***	1.48***	1.56***	1.86***	1.37***	1.52***	1.33***	1.38***	1.63***	1.87***
Education (no education = reference group)													
Primary ed.	--	1.41***	1.11	1.05	1.44***	1.24***	1.22**	1.14	1.14*	1.04*	0.98	1.63**	1.23*
Secondary ed.	1.47**	2.56***	1.65***	1.58***	2.92***	2.52***	2.54***	1.64***	2.39***	1.32***	0.95	2.84***	2.07***
Higher ed.	2.68***	10.36***	4.12***	6.72***	5.56***	4.89***	7.69***	4.68***	9.87***	2.49***	1.45***	4.94***	4.68***
Media access	0.83	1.05	0.97	1.47***	1.48***	1.68***	1.25**	1.39***	1.10	0.88***	1.11*	1.01	1.40***
Muslim	--	0.59***	--	0.98	--	0.75***	0.89	0.71***	--	1.05	1.00	--	0.94
Age	1.04	1.08***	1.02	1.03	1.08***	1.01	1.07***	1.07***	1.15***	1.00	1.02	0.98	1.07***
Age squared	0.99	0.99***	0.99	0.99	0.99**	1.00	0.99**	0.99*	0.99***	1.00	0.99	1.00	0.99*
Never married	1.85*	1.94***	1.02	1.10	1.59***	N/A	1.79***	1.88***	1.06	N/A	N/A	N/A	1.93***
Age at marriage (15 and younger = reference group)													
16-19	1.13	1.07	1.05	0.97	0.99	1.17***	1.19**	1.02	1.01	1.24***	1.03	1.22	1.22*
20 and older	1.30	1.28***	1.03	0.97	1.02	1.38***	1.12	1.23*	1.07	1.36***	1.08	1.25*	1.55***
Husband's education (no education = reference group)													
Primary ed.	--	1.36***	1.07	1.03	1.24*	0.99	1.13	1.22	0.95	1.05*	1.08	1.60*	1.02
Secondary ed.	1.53**	1.48***	1.01	1.20*	1.60***	1.24***	1.32**	1.52***	0.95	1.18***	1.01	1.66*	1.12
Higher ed.	2.06***	2.32***	1.37*	1.98***	2.10***	1.86***	1.43*	1.89***	1.62*	1.51***	1.27*	2.57***	1.24

Note: Primary school education was used as the reference group for Armenia because there are very few respondents with no education.

*p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001 (two-tailed tests).

Table 2.2b: Predictors of Rejection of Intimate Partner Violence (Odds Ratios)

	Madagascar	Malawi	Mali	Nepal	Nigeria	Philippines	Rwanda	Senegal	Tanzania	Turkey	Uganda	Zambia	Zimbabwe
Wave 2	0.82*	1.31***	2.84***	1.28***	2.14***	1.91***	1.80***	1.30***	1.18**	1.04	1.30***	2.03***	1.15*
Urban	0.77**	1.78***	0.96	0.70***	1.53***	1.37***	1.21**	1.47***	1.29***	2.03***	1.64***	1.05	1.92***
Education (no education = reference group)													
Primary ed.	0.95	0.95	0.96	1.00	1.05	0.95	1.11	1.23***	1.01	1.89***	1.06	0.78***	1.29*
Secondary ed.	0.90	1.38***	1.55***	1.09	1.52***	1.15	2.13***	1.80***	2.28***	5.75***	1.45***	1.24*	1.87***
Higher ed.	1.53**	6.31***	4.63***	1.73**	2.83***	1.69***	6.35***	5.41***	3.30***	34.13***	2.86***	5.07***	6.42***
Media access	0.99	1.14***	0.99	1.00	1.10*	1.00	1.23***	1.35***	1.12*	--	1.20**	1.40***	1.05
Muslim	1.44*	1.53***	0.79*	0.83	0.90*	0.31***	--	0.66***	--	--	0.94	1.42	0.71
Age	1.05***	1.09***	1.02	1.02	1.02*	1.04**	1.09***	1.07***	1.05*	1.09***	1.06**	1.09***	1.13***
Age squared	0.99**	0.99***	0.99	0.99	0.99	0.99**	0.99***	0.99***	0.99*	0.99***	0.99**	0.99***	0.99***
Never married	1.21*	0.79**	1.26*	N/A	1.39***	1.61***	1.29*	1.50***	1.31**	N/A	1.13	0.94	2.03***
Age at marriage (15 and younger = reference group)													
16-19	1.06	0.96	1.04	1.02	1.16***	1.21**	1.05	1.28***	1.04	1.03	1.04	0.98	1.22**
20 and older	1.10	0.96	1.39***	1.05	1.29***	1.30***	1.13	1.43***	1.05	1.10	1.04	1.04	1.39***
Husband's education (no education = reference group)													
Primary ed.	0.99	0.96	0.83*	1.02	1.01	1.24	1.13*	1.09	1.13	1.20	0.90	0.84	0.96
Secondary ed.	1.14	1.04	1.22*	1.14	1.16**	1.31*	1.41***	1.30**	1.62***	1.83***	1.03	0.81*	1.20
Higher ed.	1.39**	1.42	1.54***	1.39**	1.20*	1.45**	1.63*	1.62***	1.47**	2.91***	1.19	1.18	1.53*

Note: *p ≤ 0.05; **p ≤ 0.01; ***p ≤ 0.001 (two-tailed tests).

Results presented in Tables 2.2a and 2.2b are again remarkable for their consistency. In 22 countries, women who lived in urban areas had higher odds of rejecting intimate partner violence, controlling for all other factors. The association is not significant in Mali and Zambia and it goes in the opposite direction in Madagascar and Nepal. Women who had attended at least some secondary school had much higher odds of rejecting intimate partner violence in all but four countries. The effect of higher education is even larger and is significant in each country. Even controlling for urban living and education, media access is still associated with higher odds of rejecting intimate partner violence in 14 countries. Overall, each of these mechanisms for diffusion of global norms has a substantial, independent effect on the odds of rejecting intimate partner violence. This is strong support for Hypothesis 2: women with more access to global discourse are more likely to reject intimate partner violence.

It is also worth noting effects for some of the other variables in the final models. Controlling for all other factors in the model, older women were more likely to reject intimate partner violence in 17 of the countries. In many of these countries the effect is curvilinear; the age-squared term is significant, indicating that the youngest and oldest respondents were least likely to reject intimate partner violence. I will discuss the effect of age further during the examination of cohort replacement versus intra-cohort change.

In 14 of the 20 countries that did not restrict the sample based on marital status, women who had never married were more likely than those who had married to reject intimate partner violence. Moreover, in 12 countries, women who married at older ages were more likely than women who married at age 15 or younger to reject intimate partner violence. This indicates that women's status in marriage is associated with attitudes about intimate partner violence, even after controlling for key demographic characteristics.

In the final model, I eliminated the categorical variable capturing spousal differences in education and replaced it with a categorical measure of husband's educational attainment. Models that include variables for spousal educational differences indicate that, contrary to expectation, compared to women in couples with the same educational level, women in marriages with husbands who had more education were more likely to reject intimate partner violence, and women in marriages where they had more education than their husbands were less likely to reject intimate partner violence. Models that include husband's educational attainment reveal that the positive relationship between education and attitudes about intimate partner violence for both women and men is stronger than the effects of relative spousal education. In nearly all countries, a husband's educational attainment had a positive association with his wife's attitudes about intimate partner violence, independent of her own educational attainment.

Explanations for the Aggregate Trend

Increasing urban living, education, and media access. Because urban residence, education, and media access are strongly associated with attitudes about intimate partner violence at the individual level, it is important to examine how much of the aggregate-level trend is explained by changes in the population composition on these characteristics. A first indication of the role of population compositional changes is found in Tables 2.2a and 2.2b. The coefficient on wave 2 remains statistically significant in every country except for India and Turkey, despite inclusion of a number of demographic predictors. This is evidence that urbanization, increasing educational attainment, expanding media access, and improvements in women's status in marriage do not explain all of the change in attitudes about intimate partner violence.

I further tested the magnitude of the effect of compositional changes by estimating a counterfactual: the percent of women who would have rejected all justifications for violence in wave 2 if rates of rejection of intimate partner violence had remained the same as they were for each population group in wave 1. As described earlier, I defined population groups by urban/rural residence, level of education, and media access because these characteristics are consistently associated with attitudes about intimate partner violence. In Figure 2.3, the first and second bars show the actual percent of women who rejected intimate partner violence in waves 1 and 2. The third bar for each country shows what the rejection percentage would have been in wave 2 if the population composition had changed but the rates of rejection within each population group had remained the same.

In almost all countries, the counterfactual scenario produces a rejection percentage that is remarkably close to the actual wave 1 percent who rejected intimate partner violence. The wave 2 standardized bar looks like the wave 1 bar. This means that had there not been within-group attitudinal changes, there would have been little change between waves in the percent who reject intimate partner violence. In most countries, population compositional changes account for only a small portion of the observed change between waves 1 and 2. Turkey is the exception, where population compositional changes account for two-thirds of the change in attitudes. Otherwise, population compositional changes account for one-third of the change in Ethiopia and India, one-quarter of the change in Armenia and Tanzania, and 20 percent or less of the change in all other countries. This provides support for Hypothesis 3: increasing urbanization, educational attainment, and media access explain some, but only a small portion, of the change in the percent of women who reject intimate partner violence. This finding is consistent with widespread diffusion of global cultural scripts through a variety of mechanisms.

Within-cohort change and cohort replacement. The analysis of within-cohort change versus cohort replacement examines how much of the observed change is due to changes within the birth cohorts represented in both waves of data collection versus change due to entrance into the population of new cohorts of women with different attitudes than their predecessors. As hypothesized, within-cohort change has greater explanatory power than does cohort replacement: increases within birth cohorts in the percent rejecting intimate partner violence explain the population-level trends in attitudes. In a surprising finding, however, in most countries, cohort replacement has a negative effect on the percent of women who rejected intimate partner violence.

Table 2.3 presents results of the regression decomposition. The left panel (columns 1 and 2) presents results already displayed in Figure 2.3: the percent of women in each survey who reject intimate partner violence. The third column shows the percentage-point change between the two time points, or the percent in wave 2 minus the percent in wave 1. Columns 4 and 5 show results from the regression decomposition analysis described earlier. Column 4 presents the amount (in percentage-points) of predicted change due to cohort replacement, and column 5 shows the amount of predicted change due to within-cohort change.

If this linear regression model fits the data, the predicted change in columns 4 and 5 should sum to equal the observed change shown in column 3. The model fits in cases where both survey year and a respondent's birth cohort have independent linear effects on the likelihood of rejection of intimate partner violence. The percentages in column 6 indicate how closely the predicted change mirrors the actual change. Agreement is close to 100 percent in almost all countries, indicating that this is an appropriate method for decomposing within-cohort change

versus cohort replacement. In India, Indonesia, Madagascar, Nepal, and Zimbabwe, the agreement is not as strong, so the decomposition results should be interpreted with caution.[12]

Table 2.3: Cohort Replacement vs. Within-Cohort Change

	Percent who Reject Intimate Partner Violence			Regression Decomposition				
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
	Wave 1	Wave 2	Observed Change: (2) - (1)	Cohort Replacement	Within Cohort Change	% Agreement: Predicted / Observed: (4) + (5) / (3)	% Due to Cohort Replacement: (4) / (3)	% Due to Within-Cohort Change: (5) / (3)
Armenia	69.29	83.58	14.29	-0.90	15.48	102%	-6%	108%
Benin	38.41	51.41	13.00	0.42	12.59	100%	3%	97%
Bolivia	77.83	80.96	3.13	0.12	2.73	91%	4%	87%
Cambodia	39.93	52.15	12.22	0.66	12.95	111%	5%	106%
Dominican Rep.	90.67	95.54	4.87	-0.39	4.89	92%	-8%	100%
Egypt	49.02	60.06	11.04	0.13	10.64	98%	1%	96%
Ethiopia	13.92	17.84	3.92	0.81	3.24	103%	21%	83%
Ghana	50.50	61.52	11.02	-1.52	12.77	102%	-14%	116%
Haiti	56.52	67.33	10.81	-1.82	13.43	107%	-17%	124%
India	42.82	44.42	1.60	-0.55	2.40	116%	-34%	150%
Indonesia	72.28	67.30	-4.98	-1.95	-2.24	84%	39%	45%
Jordan	28.91	25.79	-3.12	-0.70	-2.40	99%	22%	77%
Kenya	29.33	45.32	15.99	-0.79	16.51	98%	-5%	103%
Madagascar	69.96	65.70	-4.26	-1.63	-0.55	51%	38%	13%
Malawi	62.26	69.23	6.97	-2.09	9.32	104%	-30%	134%
Mali	9.30	22.05	12.75	-0.06	13.75	107%	0%	108%
Nepal	71.05	76.50	5.45	-0.65	7.14	119%	-12%	131%
Nigeria	33.13	52.33	19.20	-0.72	20.83	105%	-4%	108%
Philippines	73.21	83.43	10.22	-0.47	10.92	102%	-5%	107%
Rwanda	33.22	47.99	14.77	-0.87	14.58	93%	-6%	99%
Senegal	32.96	39.21	6.25	-0.38	5.95	89%	-6%	95%
Tanzania	38.71	44.38	5.67	-1.13	6.36	92%	-20%	112%
Turkey	50.36	55.06	4.70	0.03	4.16	89%	1%	89%
Uganda	22.09	27.82	5.73	-1.09	7.00	103%	-19%	122%
Zambia	21.83	38.26	16.43	-1.65	18.56	103%	-10%	113%
Zimbabwe	46.30	50.87	4.57	-2.73	7.94	114%	-60%	174%

Note: Negative percents indicate that if there had only been cohort replacement and no within cohort change, the trend in attitudes about intimate partner violence would be moving in the opposite direction.

Finally, columns 7 and 8 show that within-cohort change is overwhelmingly driving the dominant trend at the aggregate level. Column 7 shows the percent of the observed change

[12] In these five countries, the effect of survey wave (the contribution of within-cohort change) depends on the respondent's birth cohort. Effects of survey year and birth year are not independent so linear regression decomposition cannot isolate their contributions to the change. Nonetheless, the overall picture gleaned from the decomposition is consistent with a closer examination of the data: in Indonesia and Madagascar, cohort replacement made a substantial contribution to the decrease in the percent of women who reject intimate partner violence; in India, Nepal, and Zimbabwe, cohort replacement accounted for none of the increase in the percent of women who reject intimate partner violence.

attributable to cohort replacement and column 8 presents the percent attributable to within-cohort change. In outlier countries that had a decrease in rejection of intimate partner violence, cohort replacement explains a substantial portion of the aggregate trend. In Indonesia and Madagascar, nearly 40 percent of the change can be attributed to cohort replacement. Similarly, in Jordan, over 20 percent of the decrease in the percent of women who reject intimate partner violence was due to cohort replacement. As seen earlier, in all other countries, women were more likely to reject intimate partner violence in wave 2 than in wave 1. Of those countries, cohort replacement contributed the most to the attitudinal trend in Ethiopia: 21 percent of the change was due to cohort replacement.

In the other 22 countries, cohort replacement explains almost none of the change. The percent of change due to cohort replacement is negative for many of these countries: had there been only cohort replacement and no within-cohort change, the trend would go in the opposite direction. If cohort replacement was the only factor driving the change, a smaller percentage of women in wave 2 than in wave 1 would have rejected intimate partner violence. Column 8 shows that within-cohort change in these countries accounts for more than 100 percent of the observed change. Based on these results, I find support for only part of Hypothesis 4. Within-cohort change is the driving factor behind the increase in the percent of women who reject intimate partner violence. Contrary to expectations, however, in most countries cohort replacement does not explain any of the observed trend.

This finding relates to the somewhat surprising relationship between age and rejection of intimate partner violence. Cohort replacement explains none of the observed trend in most countries because young women were less likely than older women to reject intimate partner violence. The logistic regression models presented in Tables 2.2a and 2.2b show that odds of

rejecting intimate partner violence generally increase with age. Although this does not conform to expectations that youth are more likely to adapt to new social norms, it is consistent with the idea that age is a source of empowerment for women. Women generally gain self-confidence, respect, and freedom as they age. This may translate into increased rejection of intimate partner violence.

Within-cohort change may be due to respondent aging or a period effect that makes respondents of all ages in wave 2 more likely to reject intimate partner violence than respondents in wave 1. I posit that the period effect attributable to dissemination of global cultural scripts plays a major role. Evidence for this interpretation is provided by the fact that women of all ages were more likely to reject intimate partner violence in wave 2. In a separate analysis (not shown), I found that in most countries, a majority of cohorts showed a significant increase in the percent who rejected intimate partner violence. The trend is consistent across ages. In summary, within-cohort change is overwhelmingly driving the dominant trend at the aggregate level. Cohort replacement explains some of the negative change in Indonesia, Jordan, and Madagascar, but otherwise it is not a good explanation.

Discussion

This study extends world society theory by testing whether it can be usefully applied to understanding trends in attitudes among nonelite individuals. Previous world society research documents the power of global cultural scripts and models to influence national policymakers. Scholars have found that the common pressures of world society explain otherwise inexplicable isomorphism in national policies (Meyer et al. 1997).

Global cultural scripts are not just relevant to national policymakers; they also provide moralized individual behavioral scripts that can influence individuals outside the halls of government. To capture the extent of world society's influence, it is therefore important to study individual attitudes and behaviors. I examined trends in individual attitudes and found substantial support for the hypothesized influence of global cultural scripts.

The study examined data on individual attitudes about intimate partner violence during a period of heighted transnational activism on this issue. Results show that after only five years, a significantly larger percentage of women in Armenia, Benin, Bolivia, Cambodia, Dominican Republic, Egypt, Ethiopia, Ghana, Haiti, India, Kenya, Malawi, Mali, Nepal, Nigeria, Philippines, Rwanda, Senegal, Tanzania, Turkey, Uganda, Zambia, and Zimbabwe rejected intimate partner violence. An increase in the rejection of intimate partner violence was evident in 23 of the 26 countries studied and the size of the change was robust in 12 of those countries. For example, in Nigeria, the percent of women who rejected intimate partner violence increased from 33 percent in 2003 to 52 percent in 2008. Nearly a 20-percentage point change within only five years is evidence of a very rapid shift in attitudes. This trend is the same among ever- and never-married women. In countries for which data are available, men's attitudinal trends follow the same patterns.

The increase in rejection of intimate partner violence occurred during the first decade of the 2000s, which corresponds with increasing global attention to issues of violence against women (Merry 2006). During this time period, world society agents sought to reach individuals directly through activities such as development programming and media outreach. Transnational advocates also pressured national governments for relevant policy action. Such pressure led to a dramatic increase in the number of countries that passed legislation addressing forms of violence

against women. At the same time, national political debates likely contributed to the spread of global cultural scripts.

The near uniformity of the observed trend and the speed of change in attitudes about intimate partner violence suggest something occurred in the past decade that affected women (and men) globally. Absent a macro-level influence, there is no reason to expect such extraordinary consistency in attitudinal trends. I posit that diffusion of global cultural scripts about women's rights, gender equality, and the ills of violence against women was an important macro-level factor that influenced national policymakers and people at the grassroots.

Further analysis shows that the demographic processes underlying the attitudinal trends are consistent with the proposed theoretical framework that links world society with nonelite individuals through broad diffusion of global cultural scripts. The changes in attitudes about intimate partner violence occurred too rapidly to be explained by structural socioeconomic or demographic shifts, both of which are expected to occur over the course of generations. Neither shifts in population composition in terms of urban living, educational attainment, and access to media nor cohort replacement explain much of the observed increase in rejection of intimate partner violence.

In the cross-sectional analysis, I found that women with greater access to global cultural scripts through urban living, education, or access to media were more likely to reject intimate partner violence. Between the two survey waves, some countries experienced an increase in these key demographic indicators. These population compositional changes account for some of the increase in the rejection of intimate partner violence, but they explain only a small portion of the total change. In the cross-section, attitudes about intimate partner violence were also

associated with women's status within marriage. However, changes in marital gender relations fail to explain the majority of the shift in attitudes about intimate partner violence.

The aggregate-level trend is produced by an increase across socioeconomic groups in the likelihood of rejecting intimate partner violence. This is consistent with the diffusion of global cultural scripts through a wide variety of mechanisms. Cultural scripts are spread not only through narrow channels of cultural diffusion, such as education, but also through mechanisms such as development programming, NGO outreach, and interpersonal networks. That women in a variety of socioeconomic positions have all become more likely to reject intimate partner violence suggests a general cultural shift.

Further evidence of a general cultural shift is provided by the analysis of within-cohort change versus cohort replacement. Results show that within-cohort change explains nearly all of the observed change. Between survey waves, women of all ages became more likely to reject intimate partner violence. This finding, like the finding that population compositional changes do not explain a majority of the attitudinal trend, is also consistent with the wide dissemination and influence of global cultural scripts. The results provide evidence of rapid cultural diffusion, not slow demographic change.

The cohort replacement analysis also led to the surprising finding that younger women were less likely than their elders to reject intimate partner violence. The popular image of social change—inspired by young people coming to adulthood with liberal attitudes—does not apply in this case. In most countries included in this study, the youngest respondents were among the least likely to reject intimate partner violence. Although it may result from the positive relationship between age and women's empowerment (as discussed by Kishor and Subaiya

[2008]), this finding suggests that the relationship between age and intimate partner violence attitudes deserves further research.

This study inspires several other avenues for future research. First, although I examined whether trends in attitudes about intimate partner violence are converging toward global cultural scripts, I did not directly test the influence of global discourse. An important next step is the collection of individual-level data on access to global cultural scripts to directly test the influence of world society.

Second, the focus of this study was on time trends in attitudes about intimate partner violence. Data were comparable across time within country but could not be compared across countries. Further research is needed to investigate cross-national differences in levels of acceptance of intimate partner violence. Analyses examining differences in the speed of change in attitudes about intimate partner violence will also contribute to our understanding of the effects of global cultural diffusion.

Third, future research should expand temporal and geographic coverage. The DHS continues to collect data and recently released a third wave of data on attitudes about intimate partner violence from five countries. The trend of increasing rejection of intimate partner violence accelerated in Ethiopia, Malawi, Nepal, and Zimbabwe. Rwanda saw a slight reversal of the trend. As more data become available, additional analyses should test the longevity of the current trend in attitudes about intimate partner violence. In addition, more data is needed to study the relationship between attitudinal trends in low-, middle-, and high-income countries. Detailed studies of outlier countries should examine why there is increasing acceptance of intimate partner violence in Indonesia, Jordan, and Madagascar. Data used in this study provide few clues as to why attitudinal shifts in those countries did not follow the dominant trend.

Finally, it is important to note that the outcome investigated here was reported attitudes about intimate partner violence. With these data, there is no way to distinguish real attitudinal change from increasing influence of social desirability. For this study, I argue that the distinction is unimportant; respondents' knowledge of the socially desirable response is in itself evidence of the diffusion of global norms. It does matter, however, whether women actually believe it is okay for husbands to beat their wives.

Moreover, studies of the influence of world society on national policies highlight decoupling between form and function resulting from adoption of policy models regardless of how well they fit a nation-state's needs and intentions (Meyer et al. 1997). The same pattern of decoupling is possible within individuals. Decoupling may manifest as a disconnect between stated attitudes and actions. Individuals will adopt or adapt some aspects of the global cultural discourse and reject others. Similarly, individuals may selectively apply the logic of the global cultural discourse. Still, as Hafner-Burton and Tsutsui (2005) found, conformity with world society that begins as an "empty promise" may have long-term consequences by providing language used to promote social change. Additional in-depth research on how individuals make use of global cultural scripts about violence against women will help to advance the findings of this study.

Investigation of connections between global cultural scripts and individual attitudes is an important extension of world society research. Global cultural models matter not only because they influence elites worldwide but also because of their potential to influence millions of individuals in less privileged social locations. During the first decade of the 2000s, as violence against women became an increasingly prominent issue worldwide, women across the globe became more likely to reject intimate partner violence. Results are consistent with the influence

of cultural diffusion, not structural socioeconomic or demographic changes. Previous case study research has documented specific instances of the effect of the global on the local. This study found evidence that the diffusion of global cultural scripts can produce widespread trends in attitudes at the individual level.

Chapter 3

Men's Gender Attitudes and HIV Risk

Introduction

Efforts to combat the spread of HIV are strengthened by knowledge of the motivations for behaviors that put people at risk of contracting the virus. In sub-Saharan Africa, HIV is primarily transmitted through heterosexual sex (Gouws and Cuchi 2012). Understanding relations between men and women, therefore, is important for understanding HIV transmission. This study examines associations between HIV risk and gender attitudes—ideals about how men and women should relate. I test the hypotheses that a man's attitudes about gender are related to his sexual behaviors and his self-assessed risk of HIV. Analyses of both quantitative and qualitative data extend findings from other studies that demonstrate associations between rigid adherence to unequal gender attitudes and negative health outcomes among men (Barker et al. 2010).

This study builds on existing work in several ways. It is one of the first academic studies to examine the association between gender attitudes and HIV risk, making use of measurement tools created by public health practitioners. The study includes a survey incorporating a modified version of the Gender Equitable Men (GEM) scale (Pulerwitz and Barker 2008), which captured gender attitudes among young men in urban Malawi. Quantitative analyses test for associations between those attitudes and recent sexual health behaviors related to HIV risk. At the same time, qualitative data from the study population is used to enhance interpretation of the quantitative

results. This is the first study of this kind in Malawi, an important location for HIV prevention research because of the relatively high HIV prevalence rate. Also, expanding the geographic scope of this type of research is valuable because constructions of gender are context specific.

Finally, the data permit a novel analysis of the association between an individual's gender attitudes and his self-assessed HIV risk. Self-assessed risk matters because perceptions of risk are correlated with adoption of risk reduction strategies (Kohler, Behrman, and Watkins 2007). The findings suggest that self-assessed risk may be a function of both behaviors and masculine self-image. They indicate that this area of research is worthy of further examination. Overall, this study adds to our understanding of underlying motivations for men's sexual health behaviors and contributes to the literature on the role of gender systems in reproductive health.

Gender Attitudes and HIV Risk

An individual's gender attitudes encompass both ideals about how men and women should behave and how they should relate. In other words, ideals of masculinity and femininity, as well as levels of desired egalitarianism, are part of gender attitudes. These facets of a person's gender ideology are integrally related and both can influence his/her sexual behaviors and risk of HIV. For example, the degree to which a man believes that there should be equality or inequality in his intimate relationships will affect who he chooses as partners and how he interacts with them. Similarly, the extent to which sexual prowess is integral to a man's successful demonstration of masculinity (to himself and to others) affects his sexual behavioral choices, including how much he is willing to put himself at risk of becoming infected with HIV. Individuals with unequal gender attitudes believe that men should dominate and control women, and often they will choose to enact a masculinity ideal that is based on their understanding of male superiority in

intimate relationships (Jewkes and Morrell 2010). Recent studies have begun to explore these connections.

A large body of literature documents the influence of gender systems on reproductive health (Blanc 2001; Mason 2001; Varga 2003; Li 2004; Dodoo and Frost 2008). Much of this literature focuses on the association between women's relative disadvantage, or lack of autonomy, and negative health outcomes (Dyson and Moore 1983; Greene and Biddlecom 2000; Beegle et al. 2001; Furuta and Salway 2006; Allendorf 2007). In addition to gender inequality, researchers are increasingly recognizing that social norms prescribing the types of actions and interactions that are considered masculine or feminine also influence sexual and health behaviors (Campbell 1997; Courtenay 2000; Silberschmidt 2001; Agadjanian 2002; Williams 2003; Barker and Ricardo 2005; Barker et al. 2010; Jewkes and Morrell 2010; Wyrod 2011; Odimegwu, Pallikadavath, and Adedeni 2012). Many behaviors that are commonly associated with the demonstration of masculinity—such as disregard for risk, rejection of help seeking, subordination of women, and violence—can produce negative health outcomes for men and their partners. For example, sexual practices that are socially rewarded as proof of masculinity in many contexts, including having multiple sexual partners, foregoing protection from STIs, paying for sex, and engaging in forced sex, are also associated with the spread of HIV (Rivers and Aggleton 1999; Mane and Aggleton 2001; Kaler 2003; Hunter 2005; Walker 2005; Nyanzi, Nyanzi-Wakholi, and Kalina 2009; Macia, Maharaj, and Gresh 2011; Dworkin et al. 2012). Most prior studies of these associations have used qualitative research methods to identify how local conceptions of masculinity relate to sexual health. Quantitative studies are also needed to test whether these associations are evident in larger populations.

Thus far, only a few policy reports have documented quantitative evidence of statistical associations between men's gender attitudes and sexual health behaviors (Barker et al. 2010). Much of this research has made use of the Gender Equitable Men (GEM) scale, which was constructed for measuring men's gender attitudes (Pulerwitz and Barker 2008). The scale was originally developed and tested in Brazil, and has since been tested in Tanzania, Ghana, Chile, Croatia, India, Mexico, and Rwanda (Barker et al. 2011; FHI 360 2012). Policy reports from those studies indicated that men with relatively equitable gender attitudes were less likely to report perpetration of intimate partner violence, more likely to report contraceptive use, more likely to have been tested for HIV, and more likely to have accompanied their partner to a prenatal healthcare visit. Men with relatively less equitable gender attitudes had more sex partners in the 12 months preceding the surveys, and were more likely to have concurrent sexual partners, less likely to use condoms, more likely to have paid for sex, and more likely to have perpetrated intimate partner violence (Barker et al. 2011; FHI 360 2012). In sum, these studies show correlations between inequitable gender attitudes and negative sexual and reproductive health behaviors and outcomes.

Little research on this topic has been conducted in Malawi. Only a few qualitative studies have examined the relevance of gender attitudes and contemporary constructions of masculinity for sexual health. In a study of rural Malawians, Kaler (2003) shows that some sexual behaviors labeled "risky" by public health officials are also interpreted as markers of masculinity. She finds that men claim to be HIV-positive as a rhetorical demonstration of their masculine behaviors, such as travel (which is associated with labor market success) and having sex with many women. Similarly, Izugbara and Undie (2008) find that young men in Malawi rely on accounts of sexual exploits to achieve validation and respect from peers. These studies demonstrate that sexual

behaviors are a common social domain for the performance of masculinity. They contribute to the expectation that Malawian men with inequitable gender attitudes will use sexual behaviors to demonstrate their masculinity through their domination of women, which can have implications for their sexual health and the health of their partners.

In this study, I examine the relationship between gender attitudes and three outcomes that are linked to the risk of HIV infection: number of sexual partners, experience of symptoms of a sexually transmitted infection (STI), and HIV testing. Having multiple sexual partners, especially if they are concurrent relationships, is a major risk factor for HIV infection (Mah and Halperin 2010). The second dependent variable—experience of STI symptoms in the month preceding the survey—is a behavioral outcome rather than a behavior itself. The underlying behavior of interest is condom use when there is a chance of infection. The survey asked about condom use, but did not collect details on marital status or partner selection in order to encourage truthful reporting of sexual behaviors. The condom use measures were difficult to interpret without information on the relationship context. Therefore, since STI symptoms are an indicator that a man has exposed himself to the risk of HIV infection by having unprotected sex, I opted to use this behavioral outcome measure instead of a measure of the behavior itself. The third dependent variable measures whether the respondent has ever been tested for HIV. HIV testing is promoted as a method of reducing transmission because when HIV-positive individuals receive treatment they reduce their viral load and their chances of infecting others (Cohen et al. 2011). Also, when individuals learn that both they and their partners are HIV negative, they may take steps to protect themselves from future infection (Delavande and Kohler 2012). Throughout the paper, for the sake of brevity, I refer to the three outcomes as sexual health behaviors, even though one of the measures captures a behavioral outcome.

I expect gender attitudes to be associated with each of the three sexual health behaviors. First, I anticipate that men with relatively more equitable gender attitudes will have fewer sexual partners. Men who believe in male dominance in decision-making in intimate relationships and who believe that "real men" have lots of sex are likely to aspire to having multiple sexual partners as proof of their masculinity (Hunter 2005; Simpson 2007; Macia et al. 2011). Second, I hypothesize that men with more equitable gender attitudes will be less likely to experience symptoms of an STI. In Malawi, sex without condoms is viewed as both more pleasurable and more masculine (Kaler 2003; Watkins 2004), which may lead men to forgo protection from STIs as proof of their manliness. Moreover, men who use their sexual experiences as proof of masculinity may be hesitant to prioritize protection from STIs over opportunities for sex. Finally, I expect that men with more equitable gender attitudes will be more likely to have undergone HIV testing. Men cultivating a masculine image of invincibility and sexual prowess may avoid testing for HIV as a potential sign of weakness or as an indication that they prioritize health concerns over sexual experiences (Barker et al. 2011). Also, given their understanding of the transmissibility of HIV, men who use accounts of their sexual exploits to validate their masculinity are often ambivalent about testing because they assume that a test will indicate that they are HIV positive (Kaler 2003; Kaler 2004; Kaler and Watkins 2010). Each of these hypothesized associations is tested in the analyses.

In addition to studying links between gender attitudes and sexual health behaviors, I also examine the associations between gender attitudes and self-assessed risk of current and future HIV infection. Perceptions of individual and community-level risk of HIV are thought to be important determinants of sexual behavior and, therefore, have implications for the spread of HIV (Smith 2003; Smith and Watkins 2005). Previous studies of self-assessed risk have

demonstrated that demographic characteristics, sexual behavior, perceptions of partners' sexual behavior, and perceived community prevalence of HIV are associated with self-assessed HIV risk (Anglewicz and Kohler 2009). I hypothesize that gender attitudes will also be associated with self-assessed risk. Drawing on qualitative work from rural Malawi (Kaler 2003), I expect respondents who adhere to inequitable gender norms to be more likely to report that they are at medium to high risk of HIV for two reasons. First, as examined in the first part of the analysis, the frequency of HIV-risk behaviors, such as having multiple partners, is expected to mediate an association between gender attitudes and self-assessed risk (Do and Meekers 2009). Second, men whose masculine identity is founded partially on sexual prowess may cultivate a self-image of high HIV risk, regardless of their actual sexual behaviors. If so, the association between gender attitudes and self-assessed risk will remain significant, even in statistical models that include controls for sexual behaviors. I examine the plausibility of each of these explanations.

Setting

This research was conducted among young men in the capital city of Malawi. Contemporary urban Malawi is characterized by social transition due to changing demographic and material conditions, global and local ideational influences, and the devastating impact of HIV/AIDS. Malawi's estimated adult HIV prevalence rate of 11 percent is among the highest in the world (National Statistics Office [Malawi] and ICF Macro 2011). The prevalence rate is much higher in urban areas, such as the study site, averaging 17 percent of adults. Approximately half of adult men have ever been tested for HIV and the percent ever tested increases with education and wealth.

Marriage is a highly valued institution in Malawi, yet divorce and remarriage are common (Kaler 2001), as are sexual relationships outside of marriage (Clark 2010). The median age of first marriage for urban men is approximately 24 years old, while the median age for first sexual intercourse is between 18 and 19 years old (National Statistics Office [Malawi] and ICF Macro 2011). This means that for many men, sex and marriage are not tightly linked. Stories of sexual exploits are an important resource for claiming respect, especially among young men (Izugbara and Undie 2008), and social desirability encourages young men to over-estimate their sexual experience (Kelly et al. 2013).

This study took place in a low- and middle-income neighborhood that is accessible by public transportation from the main bus depot and the two main commercial centers of the city. The variety of house constructions provides visible evidence of the socioeconomic heterogeneity. Houses range from mud structures in disrepair with no privacy to buildings made of cement with corrugated iron roofs, brick fences, and iron gates. Most residents of the area rent their accommodations; relatively few well-off families own their homes. Livelihood insecurity is a daily reality for many urban residents. At the time of this data collection, Malawi was experiencing a period of economic instability resulting in fuel shortages and rising prices for basic goods.

Data and Measures

The data for this paper come from a stratified random sample of approximately 1,270 men in one area of Lilongwe, as well as in-depth interviews with a sub-sample of those men. The data were collected as part of a larger survey experiment investigating demand for adult male circumcision for HIV prevention. The research site and sampling strategy for both the quantitative and

qualitative data collection were designed to meet the needs of the larger project. In March 2010, participants in the circumcision study were sampled from the catchment area of the study's partner clinic, which corresponded to 29 census enumeration areas as defined by the Malawi National Statistics Office. The enumeration areas were further sub-divided into blocks using natural landmarks such as roads, walking paths, and streams. Two blocks per enumeration area were selected for inclusion and a full census was conducted in each selected block. One uncircumcised man between the ages of 18 and 35 was randomly selected from each household. Upon receiving consent, selected men were administered a baseline survey questionnaire about circumcision. The baseline survey sample consisted of approximately 1,700 men. A little more than one year later, in June 2011, the research team attempted to re-contact all baseline survey respondents and achieved a response rate of about 77 percent.

Questions about gender attitudes and sexual health practices were included in the follow-up survey. The survey was conducted face-to-face in a private location by young male Malawian enumerators. Because only uncircumcised men were eligible for participation in the survey, Muslim men and men from ethnic groups that regularly practice circumcision as part of a rite of passage (primarily Yao men) are excluded from the sample. Otherwise, the sample is designed to be representative of the target neighborhood in Lilongwe. For all quantitative analyses, the sample has been restricted to those respondents with no item missing data. Approximately 150 follow-up respondents were excluded because of missing data, resulting in an analytic sample of 1117 respondents.

Dependent variables

Data for the behavioral outcomes come from three survey questions. Respondents were asked how many different women they had sex with during the preceding year. The answers are continuous, starting at zero and ranging up to 30 partners in the past year. The question regarding STIs asked about specific symptoms: "*Some men experience pain during urination, have an unusual discharge from the penis, or have sores in the genital area. During the past 4 weeks, have you had… Pain during urination? Unusual discharge? Sores in the genital area?"* The three symptoms of an STI were combined into one variable coded 1 for respondents who had experienced any of the symptoms in the preceding month, and 0 otherwise. Finally, respondents were asked whether they had ever been tested for HIV and the answers were coded 1 for those who had been tested and 0 otherwise.

The survey included two questions to capture subjective assessment of HIV risk. The first asked, "*In your opinion, what is the likelihood (chance) that you are infected with HIV/AIDS now, no likelihood, low likelihood, medium likelihood, or high likelihood?"* In the analyses, respondents who said that there was a medium or high likelihood that they are currently infected (coded 1) are compared with all other respondents (coded 0).[13] The second question asked about future risk: "*Now think about you yourself, do you think you are at higher, lower or equal risk than the average man of becoming infected with HIV/AIDS?"* Again, the analyses compare men who said they were at higher risk than average (coded 1) with everyone else (coded 0).

[13] Responses were dichotomized in the same way by Anglewicz and Kohler (2009) who provide evidence that self-perceived medium and high likelihood of infection is interpreted as higher than average risk.

GEM Scale Score

The independent variable of interest was a modified GEM scale score. The GEM scale was initially developed and validated in Brazil and has since been tested in a number of countries (Pulerwitz and Barker 2008; Barker et al. 2011). Based on preliminary qualitative fieldwork, 13 statements from the inequitable gender norms scale were selected for inclusion in the final section of the survey. Respondents were asked whether they agreed, partially agreed, or disagreed with each of the statements listed in Table 3.1. The percent of respondents who provided the gender equitable response is shown in the 'disagree' column of the table. This proportion varied by GEM scale item, ranging between 21 and 90 percent of respondents.

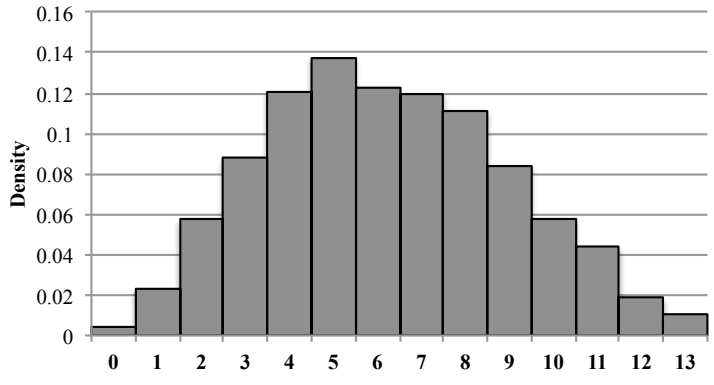
Table 3.1: GEM Scale Components

	Agree	Partially Agree	**Disagree**
I would feel weak if I asked for help	8.8%	1.3%	**90.0%**
You don't talk about sex, you just do it	19.0%	3.9%	**77.2%**
I would be outraged if my wife asked me to use a condom	24.0%	4.1%	**71.9%**
If a woman cheats on a man, it is ok for him to hit her	26.3%	3.8%	**69.9%**
There are times when a woman deserves to be beaten	41.0%	5.2%	**53.8%**
Men need sex more than women do	41.6%	9.9%	**48.4%**
It is a woman's responsibility to avoid getting pregnant when a pregnancy is not wanted	56.3%	4.9%	**38.8%**
Changing diapers, giving the kids a bath, and feeding the kids are a woman's responsibility	55.3%	6.6%	**38.1%**
Men are always ready to have sex	58.0%	5.1%	**36.9%**
A man should have the final word about decisions in his home	64.4%	6.5%	**29.2%**
It is the man who decides when to have sex	64.6%	10.2%	**25.3%**
Women need health services more than men	73.2%	5.2%	**21.6%**
A man needs other women, even if things are fine with his wife	73.5%	6.0%	**20.5%**

Notes: "Disagree" is the gender equitable response to each item.

Responses to the scale items were summed into an additive scale that included one point for every 'disagree' response.[14] Thus scale responses ranged from 0 to 13, with 13 representing the most equitable response pattern. The distribution of the summed GEM scale scores is presented in Figure 3.1. The internal reliability of the additive scale was tested using Cronbach's alpha and produced a score of 0.71, which indicates an acceptable level of internal consistency. The scale has a mean of 6.2 and a standard deviation of 2.8, indicating a relatively wide range of gender attitudes centered around men with only moderately equitable attitudes. Barker et al. (2011) trichotomized the scale by score, categorizing men in the bottom third of the scale as low equity, middle third as medium equity, and top third as high equity. Using this same method, nearly 30 percent of the men in this sample are low equity, 49 percent are categorized as medium equity, and 21 percent are high equity. In comparison to the findings of other studies, the gender attitudes of men in Malawi are comparable to attitudes among men in Rwanda, generally more equitable than gender attitudes among men in India, and less equitable than gender attitudes among men in Latin American and East European countries (Barker et al. 2011).

Figure 3.1: Distribution of GEM Scale Scores



An analysis of the demographic and socioeconomic predictors of GEM scale scores (not shown) indicated that education is the strongest predictor of gender attitudes. There is a weakly

[14] Factor analysis was also used to create a weighted scale score for each respondent. The correlation between the weighted and un-weighted scale scores was 0.96, so the un-weighted additive scale was used for the sake of clarity.

positive and curvilinear relationship between gender attitudes and age. And, individuals with greater expenditures generally have more egalitarian gender attitudes. These associations were no longer significant, however, when education was included in the models. Holding age and monthly expenditures constant, the average difference in GEM scale score between someone with no education and someone with more than secondary education was 4.5 points, a substantial difference on this 14-point scale. The strong association between gender attitudes and education was consistent with theories of gender, as well as the findings of previous studies (Pulerwitz and Barker 2008; Barker et al. 2011). Men with more education are more likely to have been exposed to a variety of forms of gender relations and are less likely to rely on explicit notions of gender inequality to assert their masculinity (Connell 1995).

Control Variables

Some of the models include controls for respondent age, education, and monthly expenditures. Age was treated as a continuous variable. The median age of first sex in this sample was 18 years old. I expected, therefore, a generally positive association between number of sex partners and age among those in their teens and twenties. The centrality of sexual prowess to the defense of a masculine identity is especially prominent among Malawian youth (Izugbara and Undie 2008) and may be less salient among older men. The association between number of sex partners and age, therefore, may reverse near the top of the sample age range. I anticipated the same to be true of symptoms of STIs. As the measure of HIV testing is 'ever-tested' for HIV, I expected a positive association with age because older men have had more sexually active years and more time to get an HIV test. Because sexual activity and HIV prevalence increases with age (until early 40s), I anticipated a positive association between age and self-assessed risk of HIV, at least

among the younger men in the sample. Both age and age-squared were included in the final models.

Education was captured using a continuous measure of number of years of education completed. I expected a positive association between education and number of sex partners, mostly mediated by wealth. Educated men generally have more access to resources and wealth is associated with greater numbers of sex partners in Malawi (Swidler and Watkins 2007). Despite having greater numbers of sex partners, more educated men may be less likely to report symptoms of an STI because use of condoms is often higher among men with more education (Baker, Leon, and Collins 2011). In the population, education is positively associated with HIV testing (National Statistics Office [Malawi] and ICF Macro 2011) and I expected to find the same relationship here. Last, because of the varied relationship between education and HIV risk behaviors, and because HIV positive status is not strongly associated with education in the population (National Statistics Office [Malawi] and ICF Macro 2011), I had no prior expectations about the direction of the relationship between education and self-assessed risk of HIV.

An estimate of how much the respondent spent during the month preceding the survey was used as a proxy measure for wealth. Income was not a good measure because few of the respondents had salaried positions, and their income varied substantially month-to-month. Instead, the amount spent on basic items—clothes, medical expenses, food, transportation, and cell phone airtime—was used to capture economic well-being. To create an estimate of total monthly expenses, the amount spent on each of the basic items was summed, converted so that each unit was the equivalent of $100 U.S. Dollars, and logged to reduce the skew in the distribution. As mentioned above, I expected a positive association between monthly

expenditures and number of sex partners because material resources are used to attract partners. The relationship with STI symptoms was hard to predict because it depends on the use of condoms. Based on DHS data, I expected a positive correlation between expenditures and HIV testing (National Statistics Office [Malawi] and ICF Macro 2011). As with education, I had no prior expectations regarding the relationship between expenditures and self-assessed risk.

The models of self-assessed risk also include controls for whether the respondent thought his primary sexual partner had multiple partners and his estimate of the prevalence of HIV in his neighborhood. Trust in the faithfulness of primary partner was measured at baseline with a question asking the respondent to choose among a series of statements to characterize his assessment of his partner's behavior. Responses were dichotomized so that men who either suspected or knew that their primary partner had one or more other partners are coded 0, and men who thought or knew that their partner had no other partners are coded 1. Unfortunately, this same measure was not available in the follow-up survey data, so I have used the baseline measure and assumed some consistency in the level of trust in the respondents' relationships. Approximately 120 of the respondents had never had a sexual partner. Those respondents were coded as having a faithful partner, since they had eliminated the risk due to a partner's unfaithfulness by remaining abstinent (whether or not by choice). Despite having a relatively weak measure, I expected respondents who did not trust their partners to be faithful to be more likely to report an elevated risk of HIV. Finally, an estimate of HIV prevalence was obtained during the follow-up survey by asking, "*If we took a group of 10 people from this area—just normal people who live around you —how many of them do you think would now have HIV/AIDS?*" Responses range between 0 and 10. I expected higher levels of perceived prevalence of HIV to be associated with greater odds of high self-assessed risk of HIV.

In addition to the quantitative survey, in-depth interviews were conducted with a stratified random sub-sample of the survey participants. In all, 64 men participated in interviews that lasted between 45 minutes and 3 hours and were conducted by male Malawian interviewers. The first half of the interview focused on beliefs and attitudes about circumcision. The second half included questions about a broader range of sexual and reproductive health behaviors, such as their relationship with their most recent partner and HIV testing, as well as questions designed to interrogate gender ideologies. For example, in the last section of each in-depth interview, the participant was asked, "*In general, around here, what are some of the things that men do to earn the admiration/respect of their male peers?*" and "*When Malawians say that someone is a real man, what do they consider?*" The interviews were conducted in Chichewa and subsequently translated into English and transcribed by the interviewers.

Analytic Approach

The quantitative analysis proceeded in stages. I began by examining the bivariate relationship between the GEM scale score and each of the sexual health behaviors. Bar charts displaying the mean level of the dependent variable for each score on the GEM scale gave a visual picture of the relationship without imposing a functional form. To test for statistical significance, I conducted bivariate OLS regression predicting number of sexual partners and bivariate logistic regression predicting the odds of having experienced symptoms of an STI or having tested for HIV. Finally, I introduced a standard set of controls to each regression model. These models tested whether the attitudinal measures were more than just reflections of variation in socioeconomic status by examining whether the associations with the GEM scale score remained significant when holding constant age, years of education, and monthly expenditures.

Tests for an association between gender attitudes and self-assessed HIV risk consisted of three sequential logistic regression models for both measures of perceived risk. The first model included only the GEM scale score. Second, I examined whether the association remained when the standard demographic controls were introduced. Finally, I wished to know whether there was a direct link between gender attitudes and self-assessed HIV risk, or if the association was entirely mediated by the behavior of the respondent and others in his network. I added three measures designed to capture the respondent's perception of risk due to their own behavior, the behavior of their partners, and the behaviors of others in their community. Specifically, the last model includes controls for the respondent's number of partners in the past year, whether the respondent thought his partner was faithful, and the respondent's estimate of the HIV rate in his community. While this is not a complete set of controls, it is a first step in testing whether there is a direct connection between gender attitudes and self-assessed risk, independent of sexual behaviors.

The qualitative data analysis also included multiple steps. I read each transcript in full as it was produced and took note of common themes. Those common themes were used as initial codes for detailed coding of the transcripts using HyperResearch. Three themes were particularly relevant to this study: sexual prowess as a marker of masculinity, HIV risk, and HIV testing. Text relating to each of those themes was extracted and reviewed in detail. Finally, once the quantitative analysis was complete, I reread the interview transcripts, paying particular attention to respondents' own interpretations of the relationships that were tested in the quantitative analysis. Representative excerpts were extracted and are included along with the quantitative results in the next section.

Results

Table 3.2 presents descriptive statistics for all dependent and independent variables. Men averaged nearly two sexual partners in the past year. Eleven percent of respondents reported experiencing symptoms of an STI in the month preceding the survey and 72 percent said they had been tested for HIV. The last two dependent variables explore men's subjective assessment of their risk of HIV. Twenty-three percent of respondents believed that there was a medium to high chance that they were already infected with HIV; and 14 percent thought they had a higher than average risk of becoming infected with HIV in the future. As expected, these rates of subjective perception of risk are higher than similar rates from rural areas of Malawi where HIV prevalence is lower (Anglewicz and Kohler 2009).

Table 3.2: Descriptive Statistics

	Mean	Standard Deviation	Minimum	Maximum
Dependent variables				
Number of sex partners last year	1.82	2.25	0	30
Symptoms of STI in past month	0.11	0.31	0	1
Ever tested for HIV	0.72	0.45	0	1
High/medium chance HIV positive now	0.23	0.42	0	1
Relatively high risk of HIV in future	0.14	0.34	0	1
Independent variables				
GEM Scale score	6.21	2.75	0	13
Age	26.66	5.40	16	52
Years of education	11.05	2.39	0	14
Expenditures last month (USD)	143.95	166.07	0	2000
Believe partner is faithful (from baseline)	0.37	0.48	0	1
Number HIV positive out of 10 people	5.04	2.00	0	10

Notes: Based on the analytic sample of 1117 respondents.

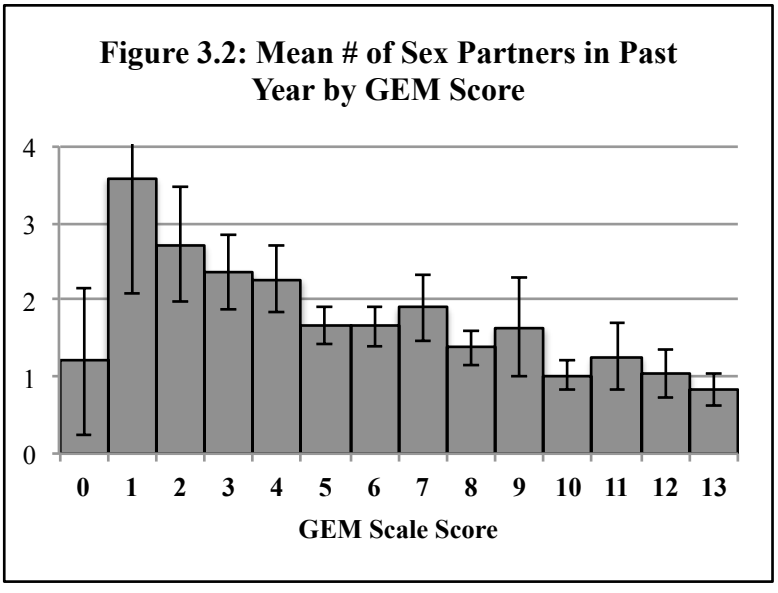
The second set of rows in Table 3.2 provides descriptive statistics for the independent variables included in the models. As noted above, the GEM scale score mean was 6.2. The

average respondent age was 27 and respondents had completed an average of 11 years of schooling. The mean amount spent on basic items in the month before the survey was the equivalent of $144. That the standard deviation of expenditures was $166 is an indication that there was considerable variation in expenditures among survey respondents. As of the baseline survey, only 37 percent of respondents believed that their primary partner had no other partners. Finally, on average, respondents estimated that 5 out of 10 people in their neighborhood were infected with HIV, which is much higher than the actual prevalence rate. I now turn to the analysis of the results.

Gender Attitudes and Sexual Health Behaviors

The analyses found strong associations between gender attitudes and sexual behaviors that were related to HIV risk, which are graphically displayed in Figures 3.2-3.4. Figure 3.2 shows that the mean number of sex partners in the past year decreased as the GEM scale score increased. The error bars display the 95 percent confidence interval range. The confidence intervals are large for the lowest and highest GEM scale scores because there were few respondents at the tails of the distribution. The statistically significant negative association between gender attitudes and number of sex partners is captured in Table 3.3 in the

Figure 3.2: Mean # of Sex Partners in Past Year by GEM Score



bivariate OLS regression model 1. The bivariate model indicates that, on average, men at the high end of the GEM scale who were more supportive of gender equity had approximately 2 fewer sex partners in the year prior to the survey than did men at the low end of the GEM scale who held relatively inequitable gender attitudes.[15]

This relationship was further explored in model 2, which controlled for age, education, and expenditures. The addition of controls to the model provided additional information on who had relatively more sexual partners, but it did not account for the relationship between gender attitudes and number of sexual partners. In particular, model 2 shows that expenditures (wealth proxy) was associated with greater numbers of sexual partners, which is consistent with previous studies that have shown that wealth is used to attract partners and that resource exchange is an important part of intimate relationships in Malawi (Swidler and Watkins 2007). Nonetheless, gender attitudes remained an important predictor of number of sexual partners, even when controlling for age, education, and wealth.

[15] The relationship remained statistically significant and was of similar magnitude when the measure of number of sex partners in the previous year was top-coded at 5 or more.

Table 3.3: Gender Attitudes and Sexual Health Behaviors

	Sex partners last year (OLS regression)		**Symptoms of STI** (Odds ratios from logistic regression)		**Ever tested for HIV** (Odds ratios from logistic regression)	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
GEM Scale score	-0.16***	-0.16***	0.90**	0.92	1.11***	1.10***
	(0.03)	(0.02)	(0.04)	(0.04)	(0.03)	(0.03)
Age		0.06		1.31		1.30**
		(0.08)		(0.21)		(0.13)
Age squared		-0.002		1.00		0.99*
		(0.001)		(0.003)		(0.002)
Years of education		-0.03		0.90***		1.03
		(0.03)		(0.03)		(0.03)
Log of expenditures last month		0.18**		1.05		1.09
		(0.07)		(0.10)		(0.07)
Constant	2.83***	2.70*	0.22***	0.01*	1.32	0.02**
	(0.19)	(1.12)	(0.05)	(0.03)	(0.21)	(0.03)
n	1117	1117	1117	1117	1117	1117
R^2 / Pseudo R^2	0.04	0.05	0.01	0.03	0.01	0.03

Notes: Robust standard errors shown in parentheses. *p<0.05; **p<0.01; ***p<0.001. Models 1&2 present coefficients from OLS regression. Models 3-6 present odds ratios from logistic regression.

The in-depth interviews provided evidence that having multiple sexual partners was a commonly recognized strategy for proving masculine achievement. This particular construction of masculinity, which emphasized the sexual conquest of women, was likely associated with relatively inequitable gender attitudes. Adam, who was age 27, said, "*There are some [men] that are famous for having many girlfriends to say, 'this one, he has that woman, that woman, this one is a man.' When it is us who do not manage to propose [sex to women], they say that this one is a 'fule' [a castrated man]*." For Adam, "real men" had sex with many women. Victor, age 25, confirmed that men are motivated to have many partners in order to impress their peers: "*What they mostly talk about is on having some extra marital affairs. Outside marital relationships so that their fellow men should respect them*." The interviewer then asked, "*And*

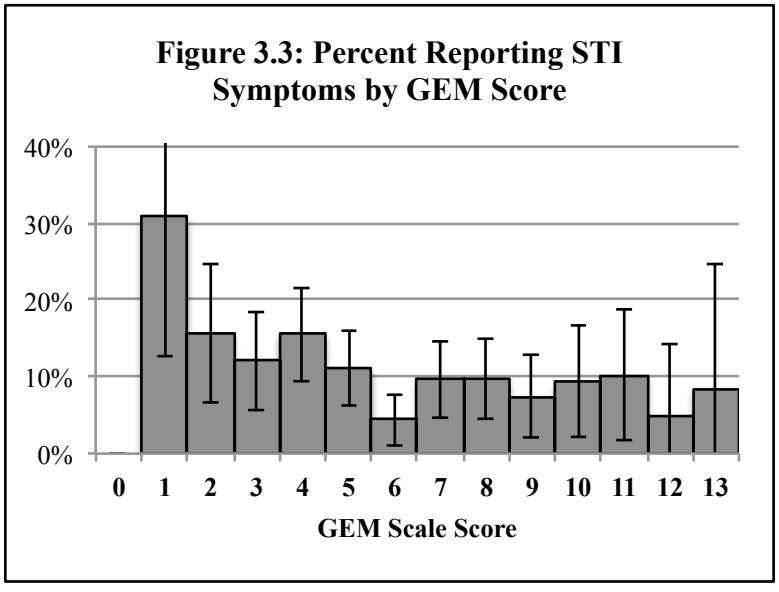
this earns them respect?" And Victor said, "*Yes, and that is why they do it*." Men who used this social norm to guide their behavior put themselves at higher risk of HIV infection if they do not use condoms.

Knowing the health consequences of having multiple sexual partners, many men regarded this masculine expectation as problematic, but acknowledged its existence and its power nonetheless. Francis (age 23) said that a man was admired when he *"likes to sleep around with women…"* Francis himself was praised for his sexual prowess, although he knew that he was risking his health by having sex with many women. He said, "*when they say this one is a real man... That saying just aims at destroying you."* Despite his understanding of the associated health risks, Francis enjoyed the praise and flattery that he received because he had many sexual partners. He accepted and enacted a model of masculinity that privileged having sex with many women, despite the risks.

Figure 3.3 examines the relationship between gender attitudes and experience of sexually transmitted infections (STIs). It shows that men who were more supportive of gender equity had a lower likelihood of having an STI in the month prior to the survey, when compared with men who expressed inequitable gender attitudes. Models 3 and 4 in Table 3.3 show odds ratios from logistic regressions predicting recent experience of STI symptoms. The bivariate model shows that with each additional point on the GEM scale, respondents had 0.9 times the odds of STI symptoms. Translated into predicted probabilities, it means that men at the low end of the GEM scale had approximately 10 percent higher probability of reporting an STI symptom than those at the high end of the scale. Model 4 shows that more equitable gender attitudes continued to be associated with lower odds of STI symptoms, although the coefficient was no longer statistically significant in the multivariate model. In this model, education captured some of the variation

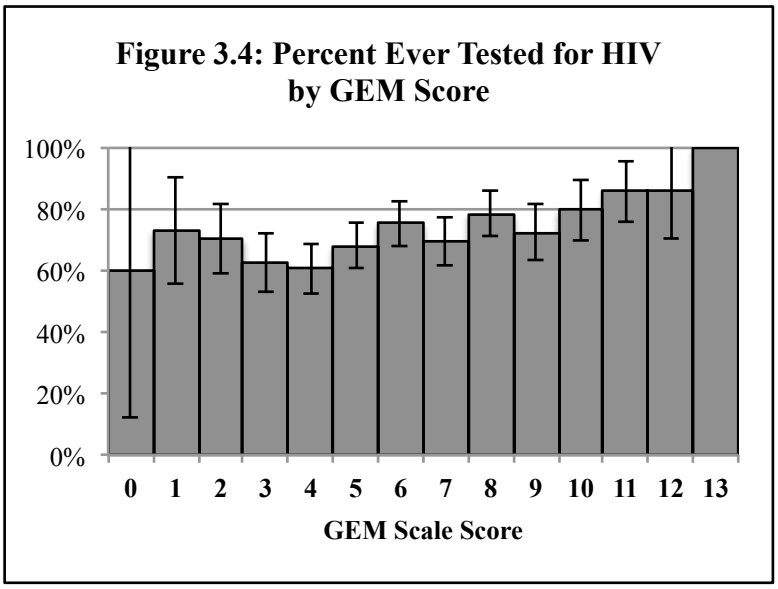
initially explained by gender attitudes. Education may be an important explanation for differential rates of STIs because education is positively associated with contraceptive use (National Statistics Office [Malawi] and ICF Macro 2011). The use of condoms may also explain why wealthy men, who had greater numbers of partners, did not appear to have higher rates of STIs in this sample.

In the in-depth interviews, a few respondents described uncontrollable masculine sexual desires as reasons for experiencing STIs. For example, Christopher, who is 25 years old, illustrates, "*one may use protection against STIs, but you may not always be ready to do that [use a condom]. You may want to have sex when you do not have condoms. In my case, I travel quite a lot. I was in Zomba yesterday and I might be travelling to Karonga today. Such things happen. It may happen sometimes that we have a breakdown and you are found at an awkward place unexpectedly and forced to sleep. You may have sexual desires that you cannot control. You may not have an opportunity to use a condom*." Uncontrollable sexual desires were integral to the performance of certain types of masculinity. The quantitative results showed that 58 percent of the sample agreed that men were always ready to have sex and 74 percent agreed that men need other women, even if things with their wives are fine. Those enacting a



masculine image based on sexual prowess made behavioral choices in a context where "real men" did not turn down an opportunity for sex because of a lack of protection. In this way, gender attitudes may have influenced men's risk of contracting STIs.

Figure 3.4 and models 5 and 6 in Table 3.3 show that men with more equitable gender attitudes were more likely to have ever been tested for HIV than those with less equitable attitudes, even when controlling for age and socioeconomic status. The odds ratio of 1.10 means that, holding other variables constant at their mean, men at the low end of the GEM scale had about a 0.6 predicted probability of having been tested for HIV, while at the high end of the GEM scale, men had greater than a 0.8 predicted probability of having been tested. This is an important difference in a place where universal testing is encouraged as an important strategy for increasing access to treatment and thereby combating the spread of HIV.



In some of the in-depth interviews, men suggested that those who do not test were those who have had unprotected sex with many women and who were afraid to know their HIV status. Zachariah, age 34, explained, "*Young men who are sexually active are afraid of knowing their status. They feel they have already contracted HIV and are tensed up.*" Markus, age 29, was one of those men. He said, "*...I feel like if I can go there to get tested, there they will tell me, 'Oh, we have found you with a virus*.'" Often, men who described their sexual behavior as risky were

disinclined to get tested for HIV. It follows, therefore, that men whose masculine identity was based on their sexual prowess were less likely to get tested.

Gender Attitudes and Self-Assessed HIV Risk

The second part of the analysis examined associations between men's gender attitudes and their subjective assessment of their own risk of HIV infection. All of the coefficients presented in the six models in Table 4 are odds ratios based on logistic regression. Models 7-9 indicate that men with more equitable gender attitudes were less likely to report that they had a medium or high chance of currently being infected with HIV. The coefficients in these models translate into substantial effect sizes. The predicted probability that a respondent reported that he had a medium or high chance of being HIV positive ranged from about 0.14 among those with the most equitable gender attitudes to a predicted probability greater than 0.3 among those with the least equitable attitudes.

Table 3.4: Subjective HIV Risk Assessment

	Medium or high chance of **current** HIV infection			Higher risk than average of **future** HIV infection		
	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
GEM Scale score	0.87***	0.90***	0.92**	0.84***	0.85***	0.87***
	(0.02)	(0.03)	(0.03)	(0.03)	(0.03)	(0.03)
Age		1.08	1.08		0.72**	0.73**
		(0.12)	(0.12)		(0.08)	(0.08)
Age squared		0.99	0.99		1.01**	1.01**
		(0.002)	(0.002)		(0.002)	(0.002)
Years of education		0.90***	0.90***		0.94	0.95
		(0.03)	(0.03)		(0.03)	(0.04)
Log of expenditures		1.03	1.00		0.95	0.92
last month		(0.07)	(0.07)		(0.08)	(0.08)
Sex partners last year			1.18***			1.09**
			(0.05)			(0.04)
Faithful partner			1.08			1.19
			(0.17)			(0.22)
Estimated HIV rate			1.01			1.13**
			(0.04)			(0.05)
Constant	0.68*	0.70	0.38	0.44***	73.43**	21.57
	(0.12)	(1.06)	(0.59)	(0.09)	(116.53)	(35.41)
n	1117	1117	1117	1117	1117	1117
Pseudo R^2	0.02	0.03	0.06	0.03	0.05	0.07

Notes: Robust standard errors shown in parentheses. *p<0.05; **p<0.01; ***p<0.001. All models present odds ratios from logistic regression.

Gender attitudes remained an important predictor when controlling for the types of variables included in previous studies of self-assessed HIV risk (Anglewicz and Kohler 2009). Model 8 controlled for age, years of education, and expenditures. Higher levels of education were associated with lower odds of reporting medium to high risk of HIV infection, but controlling for education did not eliminate the association with gender attitudes. Model 9 included controls for the respondent's sexual behavior, as well as his perception of his partner's behavior and of HIV prevalence in his community. Not surprisingly, the respondent's reported

number of sex partners in the previous year was positively associated with his probability of reporting that there was a medium or high chance that he was already infected with HIV. Men in this area were aware that having multiple sex partners increased their risk of becoming infected with HIV. Including the control for the number of sexual partners in the past year accounted for some, but not all of the association between gender attitudes and self-assessed risk. Whether the respondent thought that his primary partner had other partners as of the baseline survey was not related to his self-assessed risk. This may be due to the weakness of the measure. The respondent's estimate of the HIV prevalence among people in his neighborhood likewise was not associated with his perceived risk.

Models 10-12 show similar findings: men with more equitable gender attitudes were less likely to say that they had a higher than average risk of HIV infection in the future, even when controlling for common predictors of self-assessed risk. Men with the most equitable attitudes had a predicted probability of approximately 0.06 of reporting that they were at higher than average risk. Respondents with the least equitable attitudes had a predicted probability greater than 0.2 of reporting higher than average risk of future HIV infection. Controlling for one aspect of the respondent's sexual behavior (number of sexual partners in the past year), his perception of the sexual behavior of his partner, and his assessment of HIV prevalence did little to explain the association between gender attitudes and self-assessed risk of future HIV infection. Model 12 shows that respondents with greater numbers of sexual partners were more likely to report that they were at higher than average risk of HIV. Also, interestingly, the greater the HIV prevalence rate perceived by the respondent, the greater his probability of reporting that he had a higher than average risk of future HIV infection. Nonetheless, controlling for sexual behaviors of the

respondent and others in his community does not completely explain the association between gender attitudes and self-assessed HIV risk.

In the interview transcripts, evidence for an association between gender attitudes and self-assessed risk of HIV appeared in discussions about HIV testing. As part of a demonstration of masculinity, some men claimed that they must be HIV positive because they had many "risky" sexual experiences (also see Kaler 2003). Since they could already assume their HIV status, therefore, there was no reason to get tested. Gibson, age 24, remarked that he heard this reasoning from his friends: "*When we are having our discussions as young men, what comes out as one of the reasons for not testing is the self-doubt of being found to be HIV positive. Some young men don't want to know their HIV status because for sure they are aware that the women they had sex with had sex with another man before them. So they are afraid of knowing their HIV status*." Gibson's friends were simultaneously making the claim that they were masculine men who have a lot of sex and that they were at high risk of HIV.

Edward, age 27, associated being a man with engaging in sexual behaviors that put him at risk of sexually transmitted infections. He described his behavioral choices as an inevitable result of the fact that he is a man. He explained, "*So, I am a man. [I think] 'I should drink one [beer] here.' You may meet prostitutes, yeah. When you meet those prostitutes you do things under intoxication and you cannot remember a condom. You just say, 'Ah, you, I will give you money. Let us have sex here.' So, those things can cause a person... you will find that you will do that alright, but you will find that [after] three days, four days something has started itching in the body, yeah*." Edward asserted his masculinity by claiming that he had uncontrollable sexual urges and by disregarding risk for the sake of sexual satisfaction. His assertion that he was at risk of sexually transmitted infections was part of the construction of his masculine self-image.

Men like Edward were at high risk of HIV because they engaged in sexual behaviors that increase one's risk of infection. In addition, regardless of their actual behavior, their masculine self-image was based, in part, on their high level of risk. It is important to note that Edward's behavior and his rationalization of his behavior were by no means representative of all interview respondents. Although many men would have disapproved of Edward's behavior (and there were plenty of responses in the interviews that indicated that men tried to distance themselves from this type of behavior), most men recognized the existence of this cultural script linking masculinity with high levels of HIV risk. A man's subjective assessment of his own risk of HIV, therefore, may reflect both the objective riskiness of his behaviors and his self-image about what kind of man he is.

Discussion

The findings of this study provide an important foundation for much needed additional research on gender attitudes, masculinity, and sexual health behaviors in Malawi and beyond. First, the Gender Equitable Men (GEM) scale proved useful in capturing variation in urban Malawian men's attitudes about gender. The percent of men giving the gender equitable response to each scale item varied from 21 percent to 90 percent. The scale captures both attitudes about masculinity and attitudes about gender relations/equality. Statements intended to capture ideals of masculinity include "*I would feel weak if I asked for help*"; "*Men are always ready to have sex*"; and "*A man needs other women, even if things are fine with his wife*." It is worth noting that 80 percent of respondents agreed or partially agreed with that last statement. This finding, by itself, provides motivation for further research on the role of masculine ideals in promoting the spread of HIV in urban Malawi. Recent studies have shown that concurrent sexual partnerships

are an important driver of the HIV epidemic in sub-Saharan Africa (Mah and Halperin 2010). Moreover, men's social networks seem to play a large role in encouraging concurrent partnerships (Clark 2010; Cordero Coma 2013). This study shows that the encouragement that men receive from their social networks to have multiple sexual partners is likely part of the social construction of masculine ideals.

The attitude that "real men" need multiple partners has also been recognized in places such as South Africa (Hunter 2005; Walker 2005). Hunter (2005) documents the rise of the *isoka* masculine ideal, which is based on securing multiple sexual partners. He argues that high unemployment undermined many historical avenues for expressing manliness—especially becoming the head of an independent household—which led to the rise in prominence of the *isoka* masculinity. Hunter, and others (Walker 2005; Morrell 2001; Lynch, Brouard, and Visser 2010; Dworkin et al. 2012), however, also document men's increasing doubts about this form of masculinity in the face of the high death tolls caused by HIV/AIDS. Masculinity is never singular or static (Connell 1995; Morrell 1998) and in-depth research is needed to examine the ways in which men in Malawi express their manliness, and the ways in which ideals of masculinity are shifting in the context of the threat of HIV. Given the responses to the GEM scale items in this study, it is clear that many, but not all, Malawian men regard sexual behaviors as a mode of establishing manhood. This makes the study of masculinities important to the study of HIV risk.

GEM scale items capturing attitudes about gender relations also point to inequitable gender norms as potentially influential in HIV risk. Relevant scale items include "*It is a woman's responsibility to avoid getting pregnant when a pregnancy is not wanted*"; "*A man should have the final word about decisions in his home*"; and "*It is the man who decides when to have sex*."

Among the survey respondents, only 25 percent disagreed with the last statement, indicating an expectation that men control sexual encounters. By influencing the character of negotiations regarding safe sex practices, this inequitable gender norm also has the potential to affect the spread of HIV (Varga 2003).

The results of the regression analyses show that gender attitudes are correlated with sexual health behaviors that influence men's risk of HIV infection, including number of sexual partners, experience of STIs, and testing for HIV. The results show that total monthly expenditure is an important predictor of number of sexual partners. Nonetheless, even when controlling for expenditures and education, gender attitudes continue to predict number of partners. This is suggestive evidence that gender attitudes, including ideals of masculinity, provide motivation (or post-hoc rationalization) for having multiple sexual partners, despite the associated risk of HIV. It is also clear that not all Malawian men support a masculine ideology that privileges sexual prowess and that this variation is linked to variation in sexual behaviors. As noted in other study settings, such variation in masculine ideals can provide openings for social and cultural change (Morrell 2001; Hunter 2005; Walker 2005).

The results also show a somewhat weak association between gender attitudes and recent experience of STI symptoms. This is further evidence that gender attitudes are associated with HIV risk. Men who have STIs have evidently had unprotected sex, which means they have recently put themselves at risk of HIV infection. In addition, men with STIs are at higher risk of acquiring HIV from an HIV positive partner (WHO 2006), which means that they have an elevated future risk of HIV as well. In Malawi, HIV prevalence is considerably higher among those who have had STI symptoms than among those who have not experienced an STI (National Statistics Office [Malawi] and ICF Macro 2011).

The analysis also documents an association between gender attitudes and HIV testing. Men with more equitable gender attitudes are substantially more likely to have ever been tested for HIV. There is relatively easy access to HIV testing in this urban setting (National Statistics Office [Malawi] and ICF Macro 2011), so differential access, although unmeasured, is unlikely to explain this finding. HIV testing is important so that HIV positive individuals can access treatment, which can improve their life chances and reduce their risk of transmitting the virus to others. Men in Malawi generally over-estimate the transmissibility of HIV and, given the prevalence of the disease, men often assume they are HIV positive because they have not always practiced safe sex (Anglewicz and Kohler 2009; Kaler and Watkins 2010). This can be used to justify the continuation of unprotected sex with multiple partners on the assumption that they are already infected. HIV testing could encourage such men to re-evaluate their sexual behaviors.

A far greater percentage of Malawian adult women have been tested for HIV in their lifetimes (73 percent) than Malawian adult men (53 percent) (National Statistics Office [Malawi] and ICF Macro 2011). Much of this discrepancy is due to the fact that women are routinely tested when they seek antenatal care. The association between men's gender attitudes and HIV testing may also prove to be part of the explanation for lower testing rates among men. Men with relatively inequitable gender attitudes may opt not to get tested because they already assume they are HIV positive and/or because getting tested for HIV implies an unmanly willingness to prioritize health over the satisfaction of sexual desires.

Finally, this study is the first to document a quantitative correlation between gender attitudes and self-assessed risk of HIV. It is possible that this association is mediated entirely by a corresponding association between gender attitudes and sexual behaviors. As demonstrated in the first set of analyses, men with less equitable gender attitudes are more likely to engage in

some of the behaviors that are associated with HIV risk. And, the analysis of self-assessed risk showed that a higher number of sex partners in the year preceding the survey was associated with a higher likelihood of reporting medium or high risk of HIV infection. Other unmeasured aspects of sexual relationships may further explain the association between gender attitudes and subjective risk assessment. For example, men with less equitable gender attitudes may be less likely to use condoms with casual sex partners or more likely to pay prostitutes for sex. These men may accurately assess that they are at higher than average risk of HIV. Thus, at least part of the explanation for the association between gender attitudes and subjective perception of HIV risk is that men who hold less equitable gender attitudes engage in more risky sexual behaviors, and, knowing that they are putting themselves at risk, reasonably assume there is a relatively high chance that they are infected with HIV. The same explanation could apply to the association between gender attitudes and future risk of HIV, presuming that men with less equitable gender attitudes intend to continue engaging in risky sexual behaviors. The current survey does not include enough measures of sexual behavior to fully examine this potential explanation.

It is also possible, however, that the association between self-assessed risk of HIV and gender attitudes is not driven entirely by behavioral differences. Kaler's (2003) work in rural Malawi shows that some men construct a masculine self-image that is based on insatiable sexual desire and sexual prowess, and the attendant higher risk of HIV. It is plausible that some men evaluate their risk of HIV based on their self-image in addition to an objective assessment of the riskiness of their sexual behaviors. Existing studies show that the formation of risk perceptions is a social process (Buhler and Kohler 2003; Kohler, Behrman, and Watkins 2007). It is possible that centrality of sexual prowess to the construction of masculinity within a man's social network affects both his sexual behaviors and his subjective assessment of his risk of contracting HIV. If

so, encouraging men to accurately assess their HIV risk may require asking them to examine norms of masculinity in their social networks. Unfortunately, these data do not provide the tools necessary to fully evaluate this possible explanation. The results do show, however, that gender attitudes remain a significant predictor of self-assessed risk, even when controlling for a number of factors that are central to HIV risk.

In addition to having a limited number of measures of sexual behavior, there are several other limitations to this study. First and foremost, the analyses are based on cross-sectional data, so no conclusions can be drawn about causal effects. The observed associations could result from gender attitudes influencing sexual behaviors or vice versa. For example, I have hypothesized above that men with less equitable gender attitudes will be less likely to seek HIV testing. However, it is possible that the causal direction is reversed: interactions with clinic personnel in the process of HIV testing may influence men's gender attitudes.

The data are also limited in coverage and content. The sample includes only urban men. Additional studies that include women and are more expansive in geographic scope are warranted. Future studies would also do well to include more detailed measures of demographic and socioeconomic status, more information on sexual behavior, as well as measures of behavioral intentions and motivations, which can begin to illuminate the mechanisms linking gender attitudes and sexual behaviors.

This study was an initial investigation of the relationship between gender attitudes and HIV risk among urban Malawian men. The findings show that the GEM scale is useful for capturing variation in gender attitudes in this setting. Results also demonstrate an association between gender attitudes and both objective measures of sexual health behaviors that are linked to the spread of HIV, and subjective self-assessed HIV risk. While preliminary, the results

suggest that there is need for further research on gender attitudes and how they relate to sexual health behaviors in Malawi and beyond.

Chapter 4

"A Real Man is Recognized by What He Does": Schemas of Masculinity and Fertility

Introduction

This paper issues a call for greater attention to cultural constructions of masculinity in fertility research. The data document contemporary conceptions of masculinity among young men in urban Malawi. They show that masculine ideals are imbued with beliefs that are relevant to fertility preferences and behaviors. The findings suggest that examinations of the influence of conceptions of masculinity on fertility outcomes would be a fruitful line of research. Such research would represent a continuation of scholars' efforts to use gender theory to enhance fertility research.

In the past few decades, demographers have responded to calls to incorporate gender theory into fertility research. 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 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 about fertility behaviors within the couple.

More recently, demographers have called 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 policymakers 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. Men's fertility 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; Dodoo and Frost 2008). Men's preferences have often been taken for granted and men have been studied primarily with regard to how they influence the fertility behavior of their wives. 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.

Bringing in another piece of gender theory, this paper presents qualitative evidence from Malawi showing that ideals of masculinity often make reference to men's fertility behaviors. The findings suggest that conceptions of masculinity may be a central ideational influence on men's fertility preferences and behaviors. Recent research has recognized the importance of cultural and ideational factors, in addition to economic and social structural factors, for demographic processes (Montgomery and Casterline 1996; Bongaarts and Watkins 1996; Kertzer 1997; Barber and Axinn 2004; Thornton 2001; Casterline 2001; Thornton 2005; Jayakody et al. 2008). I argue that the investigation of social and cultural influences on fertility could be usefully expanded to include studies of conceptions of masculinity, referred to hereafter as 'masculinity schemas.'

Schemas are mental representations such as values and beliefs that inform how people understand the world around them and determine how to act in the world (Sewell 1992; Johnson-Hanks et al. 2011). In other words, schemas are both models *of* the world and models *for* the world, informing people's goals, interpretations of the actions of others, behavioral choices, and justifications of their own conduct (Geertz 1973; Thornton, Axinn, Fricke, and Alwin 2001). Extending this definition, masculinity schemas 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). Men enact available schemas to build their sense of manhood and to perform their masculinity for others. Masculinity schemas offer models for how to understand relations between men and women and how men should behave to assert that they are successful men. As such, masculinity schemas are potentially important influences on fertility preferences and behaviors.

As a significant life event, fathering a child can be integral to the production of a masculine identity (Morrell 2006). And yet, masculinity schemas have been largely ignored as an important ideational influence on men's fertility preferences and behaviors. A search in Scopus for words beginning with "masculin" in the title, abstract, or keywords of articles in *Demography*, *Population and Development Review*, *Populations Studies*, *Studies in Family Planning*, and *Demographic Research* return only three relevant articles (and only one that directly addresses fertility outcomes). This gap in the literature is all the more surprising given the prominent attention to both ideational factors and gender systems in recent studies of fertility.

The goal of this paper is to illustrate the relevance of contemporary masculinity schemas to men's fertility preferences and behaviors. I begin by discussing current theories of masculinity to provide a theoretical apparatus on which the arguments of the rest of the paper are built. This is followed by an examination of existing literatures that contribute to the expectation that masculinity schemas are imbued with beliefs relevant to men's fertility. In the second half of the paper, I draw on qualitative data collected in urban Malawi in 2011 to explore the fertility-related elements of masculinity schemas in one particular setting.

Theories of Masculinity

I suggested above that masculinity schemas are an additional, and thus far underappreciated, cultural element that may have bearing on fertility trends and behaviors. In this section, I review three tenets of masculinity theory that are most relevant to the study of fertility.

1. *Masculinity is not biological*. Existing literature affirms that masculinity is neither biologically determined nor automatically ascribed to all men (Morrell 2006). Instead, men must assert their manhood by enacting masculinity schemas, which are based on shared understandings of masculine ideals (Connell 1995). Masculinity schemas are continuously performed through actions and interactions with others, and are also learned through those interactions (Connell and Messerschmidt 2005). For individual men, especially men of relatively low social status, the achievement of a masculine image is fragile and in need of constant reinforcement (Izugbara and Undie 2008). Individuals have agency (although not unlimited options) in how they enact masculinity schemas, and the accumulation of those individual choices, whether conscious or not, has 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 enactment of masculinity schemas.

2. *Masculinity schemas are variable*. Another important finding is that schemas 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 schemas 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 schemas of masculinity, or between schemas 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 masculinity schemas, and, vice versa—that changes in masculinity schemas can cause systematic change in demographic behaviors.

3. *Resources are required to assert masculinity*. Last, the literature has demonstrated that multiple masculinity schemas exist within any one social context. As has been observed of other ideational influences on demographic behavior (Jayakody et al. 2008), schemas 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 enactment of masculinity schemas 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 access to resources can influence men's ability to enact different masculinity schemas, which can produce systematic variation in fertility patterns within a community.

These three themes from the literature on masculinity provide a baseline for considering how studies of masculinity schemas can be usefully integrated into research on fertility. Masculinity schemas are an element of culture that has bearing on relations between men and women and, as such, are potentially significant in the study of fertility outcomes (see Bledsoe, Lerner, and Guyer 2000). With these principles in mind, I now turn to an examination of existing literature on masculinity schemas and sexual health. Findings from this literature also lead to the expectation that masculinity schemas will make reference to men's fertility preferences and behaviors.

Masculinity Schemas in Sexual Health Research

Two bodies of literature provide suggestive evidence of the relevance of masculinity schemas 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 masculine identities are 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). 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 in sub-Saharan Africa 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 schemas 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 masculinity schemas clearly influence sexual behavior, it is reasonable to assume that they may also be relevant to *fertility* behavior.

Studies of gender attitudes are a second line of research that provides evidence suggesting that masculinity schemas may be relevant to fertility outcomes. 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 may capture variation in propensity to aspire to different masculinity schemas 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 schemas and fertility outcomes may be related.

Existing studies show that equitable gender attitudes are generally associated with smaller family sizes. In wealthy 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). Moreover, a recent study showed that men in East Africa with less equitable gender attitudes had relatively high fertility aspirations (Snow, Winter, and Harlow 2013). All of these studies indicate that gender attitudes are associated with fertility behaviors. It is reasonable, therefore, to hypothesize that masculinity schemas, which are an important component of gender attitudes, will also be associated with fertility behaviors.

In sum, there are many indications that masculinity schemas are infused with messages about fertility. Existing research shows that conceptions of masculinity are relevant to sexual health behaviors. Other research demonstrates associations between gender attitudes and men's fertility preferences and behaviors. All of this evidence suggests that studies of masculinity schemas may be pertinent to the study of fertility. In the following sections I describe the methods, analysis, and results of a study in Malawi that explored young men's masculinity

schemas. While I do not have the data to examine how masculinity schemas affect fertility, my data do permit analysis of the masculinity schemas themselves. This is an important first step. The results show that masculinity schemas in this setting are indeed permeated by ideals relevant to fertility preferences and behaviors.

Methods

The data for this investigation 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 and the interview response rate was about 90 percent. In addition to questions on circumcision, the interviews included sections on other sexual and reproductive health behaviors and beliefs about contemporary gender relations in Malawi. The majority of the data presented below come from the in-depth interview data, with supplemental information from the quantitative survey. Additional details on the study design can be found in Chinkhumba, Godlonton, and Thornton (2012).

Research Site

Contemporary urban Malawi, like much of Africa, is characterized by social transition and turbulence due to changing demographic and material conditions, and global and local ideational influences (Walker 2005). Both social norms regarding fertility (Sennott and Yeatman 2012) and

conceptions of masculinity (Reid and Walker 2005; Izugbara and Undie 2008) are in a state of flux. Men must navigate life choices and justify those choices in conditions of competing expectations (Walker 2005). This makes urban Malawi an interesting site for the examination of masculinity schemas and their relevance to fertility preferences and behaviors.

Average fertility in Malawi has declined slowly in the past 20 years, but there is considerable heterogeneity in fertility preferences and behaviors within the country. According to Malawi's first Demographic and Health Survey, women in 1992 gave birth to an average of 6.7 children in their lifetimes (National Statistics Office and Macro International 1994). The total fertility rate (TFR) in 2010 was 5.7 for the country as a whole: 6.1 for rural areas, and 4.0 in urban areas (National Statistics Office [Malawi] and ICF Macro 2011). Fertility preferences among men vary substantially by location of residence and education. Average desired family size among men (and among women) is approximately 4 children, but this ranges from about 5 children among rural men with no education to about 3 children among urban men with secondary or higher education.

The neighborhood where the study was conducted is populated by low and middle-income Malawians. It is accessible by public transportation from the main bus depot and the two main commercial and business centers of the city. The variety of house constructions provides visible evidence of the socio-economic heterogeneity. Houses range from mud structures in disrepair with no privacy fence to buildings made of cement with corrugated iron roofs, brick fences, and iron gates. The wealthier houses have electricity and water running directly to the house; others collect water from community water pumps and have no access to electricity. Most residents of the area rent their accommodations; relatively few well-off families own their own homes.

Among the participants in the qualitative interview sample, median monthly expenditures totaled $117 with a standard deviation of $93, indicating a relatively low-income sample, but one with considerable variation in wealth. Nearly all respondents are literate in both Chichewa and English and they have completed an average of 11 years of school. Almost one-fifth of the sample did not go beyond primary school, nearly 60 percent completed some or all of secondary school, and 25 percent has attended schooling beyond the secondary school level.

Data Collection

Both the survey questionnaire and the in-depth interviews were conducted in person by young male Malawian members of the research team. Most interactions between the research team and the participants occurred near the respondent's home, which is where they were originally contacted, but the respondents were able to select a private location for each interview. Before each survey questionnaire or in-depth interview, respondents were informed of their rights as research participants and gave written informed consent. With additional consent, a digital audio recorder was used to record the in-depth interview. All respondents were offered 250 mobile phone airtime units (approx. value of $1.67) at the end of the survey and at the end of the interview to thank them for their participation.

The bulk of the questions on the quantitative surveys interrogated sexual behaviors, knowledge and attitudes about circumcision, and circumcision-related behaviors. The follow-up survey also included a modified version of part of the Gender Equitable Men (GEM) scale, a newly developed measure of gender attitudes (Pulerwitz and Barker 2008). Responses to some of the items in the GEM scale that asked men to indicate their evaluation of common masculinity schemas are reviewed in the results section.

The in-depth interviews lasted between 45 minutes and 3 hours and were conducted primarily in Chichewa. Before data collection, the author trained the interviewers on the purpose of the study and the interview guide. Interview guide translation from English to Chichewa was done as part of the interviewer training, which facilitated further discussion of the interview goals. A third party back-translated the guide into English, providing an additional check of the translation. The first half of the interview focused on men's knowledge, opinions, and experience related to circumcision. The second half was designed to examine men's gender attitudes and the relationship between those attitudes and their sexual health and fertility behaviors. Interviewers asked the following two questions to capture masculinity schemas: 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?" The interviews were transcribed into Chichewa and English immediately upon completion and were read by the author as they were produced. Suggestions for how to improve the probing and targeting of questions were given for the subsequent interviews.

Analysis and Limitations

The analysis of the interview data was conducted by the author alone. Once the interviews were complete, detailed coding of masculinity schemas and fertility preferences was performed using HyperResearch, a commercial software package designed for the analysis of qualitative data. Each type of behavior that was described as admirable was coded as a separate masculinity schema. Fertility preferences were coded according to general themes, such as "good to have few children." Coded segments of the interviews were extracted and reviewed again for

commonalities. Finally, the transcripts were read closely a fourth time with the specific aim of summarizing each respondent's statements regarding masculinity and fertility.

The data used for this study have several limitations. The interview sample was not purposively selected for the study of masculinity schemas and fertility, nor is it representative of the men who live in this area of Lilongwe. Only uncircumcised men were eligible for participation in the baseline survey, which means that Muslim men and men from ethnic groups that regularly practice circumcision as part of a rite of passage (primarily Yao men) are excluded from the sample. In addition, the sample of in-depth interview participants was selected to ensure variation in circumcision status as of the follow-up survey and, therefore, men who opted to get circumcised in the year after the baseline survey are substantially over-represented among interview respondents. Only a small minority of men in the study chose to undergo circumcision between the baseline and follow-up surveys and those who did are likely unusual in unobservable ways. They may be more attune to the risk of HIV, more agentic in their responses to the threat of HIV, more open to the advice and influence of outsiders, or simply more willing to try new things. These characteristics may also be related to the ways in which these men choose to enact masculinity schemas. In sum, data from this interview sample cannot be generalized to men in the neighborhood from which it was drawn or to any larger geographic area.

Another important aspect of the design is the choice to only interview men. Women play a key role in the construction and perpetuation of masculinity schemas and therefore should be included in future studies of conceptions of masculinity. Despite these sample limitations, the interviews captured the thoughts and experiences of men of varying socioeconomic status in an urban setting and their statements are valuable for examining the relevance of masculinity

schemas for fertility in contemporary Malawi. The meanings that they ascribe to various masculinity schemas are likely to be shared beyond the confines of this particular neighborhood.

Another important feature of the qualitative data is that the interviews were conducted by young Malawian men in the context of a study related to the prevention of HIV. The interaction context likely affected the masculinity schemas invoked by the participants and the positive or negative valence attached to each schema. The interview participants most often viewed the interviewers as peers, and this may have encouraged greater discussion of the kinds of masculinity schemas that are commonly prominent in young male peer networks, such as schemas emphasizing sexual promiscuity. Interviewers who shared some social characteristics with the participants were selected purposely to increase the participants' comfort level. On the other hand, the context of a Western-funded HIV research study likely meant that social desirability promoted discussion of responsibility regarding sexual and fertility behaviors. It is always the case that cultural schemas are invoked in a particular context, and while interpreting the interview data it is important to remember the context in which the responses were offered. With that in mind, I now turn to discussion of the results.

Results

The men who participated in the in-depth interviews described many masculinity schemas. This was consistent with theories of masculinity that hypothesize the existence of multiple masculinity schemas within any one social context. Moreover, the responses indicated that men's behaviors are judged against these masculinity schemas. For example, Kingsley (age 28) explained, "Being a man does not qualify every man to be called a real man. A real man is recognized by what he does." Men admired their peers who were relatively wealthy and those

who had done well in school. Men were also appreciated for being hard working, respectful, and religious. There were three common masculinity schemas that directly referenced fertility preferences or behaviors in urban Malawi. First, although it was not mentioned often, it was clear that real men were expected to father at least one child. Second, men were considered failures unless they could provide adequate housing, food, clothing, and school fees for their children. Finally, many men were praised for their sexual prowess. The next few sections review evidence of these three masculinity schemas and consider their potential relevance to men's fertility preferences and behaviors.

Real Men Father at Least One Child

While not always explicit in the transcripts, adult men were expected to have at least one child. Diston (age 24) said, "A real man is supposed to have at least a child once people get married." Nile (age 25) told a story of one of his friends being mocked because he and his wife had not had children. He relayed, "We have our friend who stays down there. He married and five years have passed. When he was in a dispute with people, the mockery he was receiving was, 'Ah, you don't bear.' So, I have seen that that friend was getting to a point of crying, meaning that it was a very painful thing, yeah. [The people said,] 'Ah, you are not a man. You are a woman!'" Nile remembered both that the absence of children in a marriage was used as fodder for ridicule and that this experience was painful for the man receiving the criticism; the exchange was an example of the perpetuation of a masculinity schema through social interaction.

An equally important social convention that links masculinity with fathering children was conveyed by Gideon (age 23). He explained that it is common in Malawi to call a man by his first name when he is young and under the care of his parents. Once he is married and has

children, it is a sign of respect to call him so-and-so's father, instead of his first name. Gideon said, "If there are children in a family you get respected very much… for the one who has a child, when people are passing by on the road they say, 'The dad for so and so!' Yeah, 'The dad for so and so!' But when you don't have a child, whose dad are they going to call you?" In his explanation it becomes clear that having a child is intricately linked to achieving the social status of adult man.

While it was important to have at least one child, at the same time interview participants indicated that the cultural schema that linked masculinity with having a large number of children was viewed as out of date. When asked whether he expected relatives and others to pressure him to have more than two children, Solomon (age 18) said, "…those traditional old fashioned things where when you have many children you feel like you are a star, no. That one, no." Many others responded as Elias (age 30) did, saying, "things have changed these days. People see that they are different from the past." Ezekiel (age 23) acknowledged and then dismissed this schema by saying, "many do admire that this is a real man because '*apa kubereka, apo kubereka*,' [he bears here, he bears there]. Then they say, 'this one is a real man.' When [really] it is not like that." Similarly, other respondents implied disapproval of the masculinity schema that encouraged men to have many children by associating it with behavior only found among uneducated men in the village who were disparaged as Malawi's past and not its future.

In summary, in this urban Malawian setting, the schema linking masculinity and fatherhood is a powerful model both of and for the world. It defines adult men as men who have at least one child and encourages men who are striving to achieve the respect accorded to an adult man to father children, especially once they are married. This schema may encourage men to try to have their first child shortly after marriage. There is also widespread acknowledgement

of a schema linking masculinity with frequent reproduction, but among the young, urban interview participants that schema is generally seen as outdated. Only one respondent explicitly rejected the idea of limiting his fertility. Instead, as a guide to the proper number of children, a vast majority of the interview participants referred to a masculinity schema that associated real men with the ability to provide food, clothing, shelter, and school fees for all of their children, as discussed in the following section.

Real Men Have Children Who are Well Dressed, Fed, and Going to School

The majority of the 64 interview participants wanted 2, 3, or 4 children. The average number of desired children was just under 3, which is consistent with DHS estimates of desired family size among urban, educated men. (Desired family size was not asked in the quantitative survey portion of this study.) Respondents described conversations with partners about limiting childbearing and conversations with friends about the benefits of lower fertility. They advised each other to have the number of children that they could "manage" or the proper number "according to your budget." Respondents often mentioned the "responsibility" that comes with having children.

The masculinity schema that depicted "real men" as those who were able to provide for all of the needs of their children was relevant to preferences regarding desired number of children. 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 deliver 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 may be 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 masculinity schema emphasizing a man's responsibility for feeding, clothing, and schooling his children is pervasive in the interviews. In fact, it was the least contested and most frequently mentioned response to questions about how others evaluate if someone is a "real man." Frank (age 31) responded, "that man is able to take care of his family very well." Anthony (age 22) said that men "admire someone who takes good care of his family." Boniface (age 21) explained what it means that a real man takes care of his family: "If he has children he has to buy them clothes, feed them very well. He has to fulfill the desires of the children, like school, getting them to be well educated." Jackson (age 29) provided a more expressive answer: "When it is in the village we say, 'For what should a child cry?' Meaning that there is everything available in the home. So, when it is here in town they do say, 'This one is a real man." The same expression was used by Henry (age 29) to describe the behavior of a "real man."

Isaac (age 22) explicitly linked a man's ability to earn the admiration of his peers by enacting this masculinity schema with the choice to have a small number of children. He said, "Like here there are some men who admire their friend's families or fellow man according to how that person is handling issues in his family, in terms of the number of children they have. If it is a small number and they are able to provide all the needs for their children… [then] they are

able to learn from them." Nelson (age 27) made a similar remark: "Some do family planning… When someone has two children only, who he will be able to support fully, he gets admiration." Joseph (age 29) explained that perceptions of a man's success would be undermined if he failed to care for his children. He 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." All of these interview participants expected that others would evaluate their masculinity based on their ability to meet their children's needs.

Similarly, when discussing their desired number of children, respondents noted that children without proper care were embarrassing to their fathers. Gideon (age 23) explained, "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." When asked his views about people who have many children, Jackson (age 29) said, "It is difficult for one to control all those children; taking care of them, sending them to school or providing food for them, yeah. They are embarrassing most of the time." When asked to explain the embarrassment, he said, "other people who look at them [your children] do know that you are lacking."

Just like married men who have no children, men who cannot provide for their children are ridiculed by others. Steven (age 35) said that it is not good to have many children because "that can also make people mock you; this one just knows to bear but he doesn't know to take care of children [laughter], yeah. So, for your family to be respectable there is need for a man to think and look at the size of your family according to your resources so that the family should not be seen that there is a problem somewhere." Later, he continues, "it is better for one to have a family that has the number of children that you are very able to take of, rather than for you to

have more children but you should fail to take care of them. You strip yourself of respect, you make the children suffer." In the same vein, respondents explained that when people see children who haven't received proper care, they attribute low social status to the children's father. 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." 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.

Overall, in urban Malawi, masculine ideals that emphasized men as providers were a potentially important ideational influence encouraging men to limit their fertility. Masculinity schemas provide powerful incentives to father children, but not too many children. Among the respondents, the stated desire to limit childbearing was not based purely on rational economic calculus; it was also informed by a masculinity schema that attributed success only to those men who were able to provide for their children. Conceptions of masculinity were an important lens through which economic and social conditions were evaluated.

Before continuing, it is important to note that both of the masculinity schemas reviewed so far speak most directly to men's fertility *preferences*. Conceptions of what makes a "real man" encourage men to have at least one, but not too many children. Such schemas will likely be activated by surveys that ask about desired family size. They may also influence decisions regarding the use of relatively long-term contraceptive methods. These masculinity schemas, however, are less immediately relevant to some of the proximate behaviors—including sexual practices and condom use—that lead to the conception (or not) of children. In other words, these schemas may not always be highly salient in the moment when men must make decisions about sex, and it is precisely during such "conjunctures" when schemas may be activated to guide

behaviors (Johnson-Hanks et al. 2011). The third masculinity schema that was frequently mentioned by interview participants is perhaps more likely to be employed in such situations. This schema is discussed next.

Real Men are Sexually Active

The third masculinity schema that was frequently repeated in the interviews, and has relevance to the study of fertility, emphasized sexual prowess and promiscuity. According to this schema, masculine men have large sexual appetites and have sex often and with many different women. Some men described sexual behaviors as a legitimate measure of masculinity, while others acknowledged but rejected the schema linking sexual prowess and masculinity. In the quantitative data, 63 percent of the full study sample (approximately 1,250 men) agreed or partially agreed that "men are always ready to have sex." Even more striking, 80 percent agreed or partially agreed that "a man needs other women, even if things are fine with his wife." These survey results are evidence of the prevalence and the power of this masculinity schema.

The schema is evident in the interview data as well. When asked what makes others consider someone a real man, many respondents talked about sexual behaviors. For example, Francis (age 23) said, "Ah, what I know when they say a real man, [it] is someone who knows or likes to sleep around with women. Then they say this one is a real man." Similarly, Robert (age 20) replied, "When they say this one is a real man, it's like that man likes women… [he has] several girlfriends." Goodwin (age 30) explained, "So when they say, 'this one is a man.' Then I look at them to say, 'what do they do?' Then I find out, of course they have money, but the main thing is that the man changes women a lot [has sex with several women]." Martin (age 33) gave a similar explanation: "These are admired because you go this way, you find that they are with a

woman, and you go the other way and you find that they are with a different type of woman and we just say that they are really into it [sex] and they are admired for that." For all of these respondents, and many others, men assert their masculinity by having lots of sex with lots of women.

Often the root of this masculinity schema seemed to be that men were expected to have insatiable sexual appetites and to constantly strive for sexual pleasure. Sometimes the responses linking masculinity and sexual promiscuity also contained suggestions that having many sexual partners was a way of demonstrating domination over women, which was why it was interpreted as masculine behavior. After explaining that some men admire peers who have sex with many women, John (age 33) gave an example of a friend who wanted a car so that he could attract women. John quoted his friend saying, "He said the key to defeating them [women] is having a car, so that once they see a car they will be cheated [think you are wealthy] and you will have it [sex] the easy way." The friend continued, "We need not be gentle to them." John's friend was rhetorically demonstrating his masculinity by simultaneously claiming a strong sexual appetite and a desire to "defeat" women.

This link between multiple sexual partners and efforts to enact masculinity by dominating women was also mentioned by Nathaniel and Diston, both of whom described this behavior as common but ill-advised. Nathaniel (age 34) explained that some of his peers think a man shows he is a "real man" by disobeying his wife's preference that he remain faithful within marriage, thereby asserting his dominance within his household. He said, "When one has paid attention to his wife or listens to his wife, they seem like they are stupid because they pay attention to their wives… It is when men are able to make a decision on their own, then they are taken as real men because they do not listen to what their wives are saying or contributing." Later he continues,

"Any problem that you encounter at your home, when you go for girlfriends, fellow men think that that is the best way of getting back at the wife so that she should be fearful." This sentiment is echoed by Diston (age 24) who said, "Once there is the smallest misunderstanding [men] opt to have a girlfriend outside marriage… Some men admire that, and they encourage each other saying, 'do not be lenient to her. If she misbehaves, go for someone else.' A lot of men consider that as a life worth admiring." These explanations suggest that frequent sex with multiple partners is viewed as masculine behavior because it demonstrates both a strong sexual appetite and the domination of women.

If the men who assert their masculinity by having many girlfriends opt to forgo contraception, these behavioral choices may have implications for fertility. Male condoms are the most commonly used contraceptive method among unmarried men and women in Malawi (National Statistical Office [Malawi] and ICF Macro 2011), but they are disliked and avoided by many potential users. Malawians often prefer not to use condoms because they destroy the "sweetness" and the pleasure of sex (Watkins 2004). Peter (age 24) underlined this problem, saying, "A lot of young men hate using condoms because they do not feel anything." Moreover, other studies have identified a cultural script that links masculinity and sex without condoms (Kaler 2003; Simpson 2007). In short, combined with an avoidance of contraception, the masculinity schema that encourages frequent sex with many partners has the potential to affect fertility in urban Malawi.

While discussing this masculinity schema that rewards sexual prowess, it is important to also mention that while the schema was recognized by almost all interview respondents, it was also rejected by many of them. Men who rejected sexual prowess as a marker of masculinity proposed other definitions of what makes someone a "real man." For example, Jeremiah (age 30)

said, “Right now people are being respected for the wrong things, like a married man having three girlfriends, while someone who is a religious man and they have a respectable job, it is difficult for them to be respected.” He acknowledged and disapproved of the schema linking masculinity and sexual prowess. To him, men should earn respect by being religious and hard working. Gift’s (age 18) response showed that some young men also express this ambivalence. He explained that among the youth, success with girls is admired: “maybe girls like him very much, so they say, ‘eeh, that one is a real man.” He continues, “that’s how we cheat one another, but that is wrong.” Later he says that some of his peers admire those who “abstain themselves from things concerning girls.” These men believed that the masculinity schema that encouraged men to have multiple partners was harmful. For many, the rejection of sexual prowess as a marker of masculinity is tied to the devastation caused by HIV/AIDS. Even Francis (age 23), who himself earned praise because of his promiscuity, saw that this masculinity schema was a double-edged sword. He noted that his friends, “they do praise me on one side, but on the other they revile me.” When asked why they revile him, he explained, “They say I will die young.” The fact that many respondents felt the need to explicitly reject the privileging of sexual prowess as the definition of masculinity, however, speaks to the power and pervasiveness of this cultural schema.

After rejecting sexual prowess as a marker of status, some men constructed an alternate masculinity schema that emphasized a man’s responsibility to care for his family and remain faithful to his wife. Jeremiah (age 30) said that a “real man” is “…someone who knows his responsibilities, someone who knows that he is on earth so as to take care of his family and his children, including his relatives. Not someone who wants to have several women.” Joshua (age 21) said that others express admiration “when they see that the man takes care of his family and

he does not have extra-marital affairs." These men favored a masculinity schema that privileged responsibility. Men who base their behaviors on this alternate masculinity schema are likely to only have children within marriage and to limit their childbearing to the number of children they can adequately support. As such, this schema may also have implications for men's fertility. The next section provides a broader examination of how researchers can think about the relationship between these three masculinity schemas and fertility behaviors.

Linking Schemas and Behaviors

The data collected in this study enable examination of the masculinity schemas that are prevalent in contemporary urban Malawi. The study was not designed to capture the ways in which the enactment of those schemas may influence behavior. As a guide to future research, however, it is important to hypothesize about how masculinity schemas may affect fertility outcomes, which is the purpose of this section. Because this study was designed to investigate individual beliefs and behaviors, I focus here on how research on masculinity schemas may contribute to our understanding of individual-level variation in fertility outcomes.

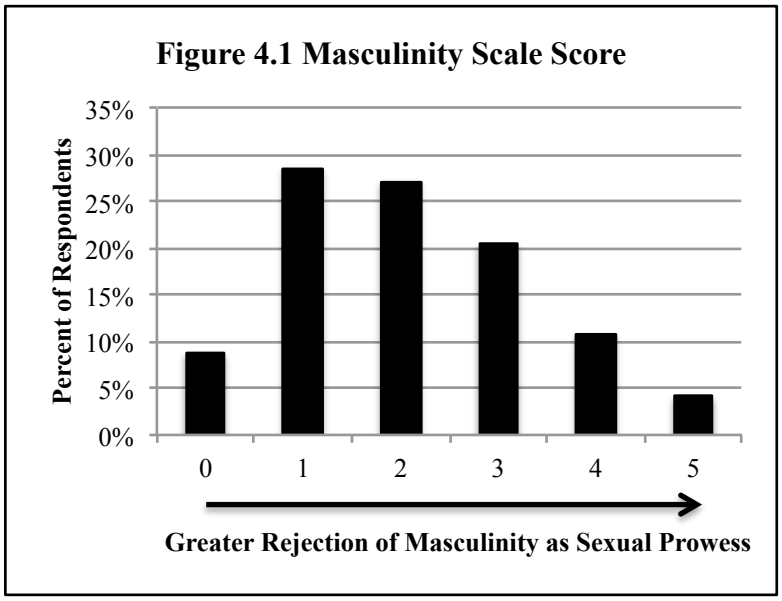
In the current study site, where everyone had knowledge of all three masculinity schemas, variation in fertility preferences and behaviors was unlikely to be explained by variable familiarity with the masculinity schemas. Instead, variation mainly derived from two sources. First, while access may have been relatively uniform, different men had different attitudes toward each of the masculinity schemas. Second, resources were required to enact masculinity schemas and the necessary resources were unevenly distributed across the population. The next few paragraphs provide examples of variation from each of these sources.

Variable endorsement of the masculinity schemas emerged most clearly in the interview transcripts with regards to the schema linking masculinity and sexual prowess. Some men aspire to enact this masculinity schema. For example, Adam (age 27) described a conversation among his friends that he had the day before the interview. He explained that they were asking each other how many women they had had sex with and boasting in their responses. Someone in the conversation began summarizing their "achievements" by describing the type of vehicle they could fill with women who had been their sexual partners. Adam reported that his friend said, "you filled an AXA [72 seater bus]. Ah, you, a minibus." In that exchange, Adam and his friends demonstrated endorsement of the schema linking masculinity and sexual promiscuity (also see Kaler 2003). As discussed above, others in the sample had much more negative reactions to this schema. Josiah (age 34) exemplified this view, saying, "it cannot be possible to earn admiration just because you have so many sexual partners, so many girlfriends… you should just have your wife." In sum, some men in the sample expressed positive attitudes and others negative attitudes about sexual promiscuity as a marker of masculinity.

Additionally, the quantitative data captured variation in attitudes about the schema linking masculinity and sexual promiscuity. Some of the survey items from the GEM scale required respondents to indicate their level of agreement with statements that assessed the centrality of sexual exploits to manliness, including, "A man needs other women, even if things are fine with his wife;" "Men are always ready to have sex;" and "Men need sex more than women do." Other items assessed the degree to which men felt entitled to control sexual encounters, such as "It is the man who decides when to have sex" and "You don't talk about sex, you just do it." Respondents were asked whether they agreed, partially agreed, or disagreed with each of these statements. The number of items with which the respondent disagreed was summed

to create a scale score ranging from 0 to 5. Respondents who disagreed with many of the items were essentially rejecting the masculinity schema that emphasizes sexual prowess and male dominance in sexual encounters.

The wide distribution of the scale scores is shown in Figure 4.1, demonstrating variable endorsement of this masculinity schema. Analyses of the quantitative data (not shown) also indicated that men who rejected sexual prowess as a marker of masculinity were relatively less likely to have fathered children by their early twenties. Although the data do not permit causal inference, we can hypothesize that men who rejected the schema linking masculinity and sexual promiscuity may have been less likely to have multiple sex partners, sex without contraception, and early initiation of sex. In other words, variable commitment to enacting this masculinity schema may be part of the explanation for variation in fertility outcomes.



A second source of variation stems from the uneven distribution of resources for enacting various masculinity schemas. Different schemas require different resources. For example, young unmarried men without children are unable to demonstrate their masculinity by providing for a family. Similarly, unemployed men may have trouble meeting the standard implied by the schema linking masculinity with children who are clothed, fed, and going to school. These men may be more likely to rely on sexual prowess to assert their masculinity. Consistent with this

hypothesis, in a study of Malawian youth, Izugbara and Undie (2008) find that for young men of relatively low social status, boasting about sexual promiscuity is central to their achievement of a masculine identity. On the other hand, men with greater financial resources may have more luck attracting multiple sexual partners, thereby demonstrating their masculinity through both their wealth and their sexual prowess.

Education may also be an important resource for enacting various masculinity schemas. Education can 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. As these examples illustrate, men with different resources will differ in their ability to enact each masculinity schema and this may lead to variation in fertility outcomes.

Discussion and Conclusion

This study investigated the masculinity schemas prevalent among young urban Malawian men. Masculinity schemas are mental representations—such as ideals, values, and beliefs—that provide guides for action based on shared expectations for how men should behave. Masculinity is not automatically ascribed to all men; instead, men assert their manhood by enacting masculinity schemas.

The interview data presented above show that several of the masculinity schemas prevalent in contemporary urban Malawi associate certain fertility behaviors with manliness. Adult men are expected to father at least one child. At the same time, men are socially rewarded for having only the number of children they can afford to clothe, feed, and send to school. Having sex with many women is also commonly acknowledged as masculine behavior. Each of these schemas was widely recognized among the study population.

These data document evidence that masculinity schemas are imbued with beliefs relevant to fertility preferences and behaviors. This is the first step in investigating masculinity schemas as an ideational influence on fertility outcomes. Theories of masculinity argue that men enact available schemas to build their sense of manhood and to perform their masculinity for others. If these schemas are acting as mental maps for action, then they may provide important motivation for decisions affecting fertility. Perceptions of what kind of behavior is masculine can affect fertility preferences, as well as more proximate determinants of fertility, such as choice and number of partners, access to information about contraception, and willingness to use contraception. Future research on masculinity schemas has the potential to illuminate reasons for differences in fertility outcomes between individuals, as well as between communities and within communities across time.

At the individual level, research that explores links between masculinity schemas and fertility outcomes should be part of the response to recent calls for investigation of factors that shape men's fertility preferences and behaviors (Agadjanian 2002). Data from this study suggest that variation in desire and ability to enact each masculinity schema may lead to variation in fertility outcomes. Varying levels of endorsement of each schema may explain some differences

in behavioral choices. Additionally, unequal distribution of resources leads to differential ability to perform each masculinity schema, and perhaps to different fertility outcomes.

At the community level, studies of masculinity schemas may illuminate differences in fertility over time. As discussed above, the prevalence and popularity of masculinity schemas are expected to change gradually over time. This may be an important part of the explanation for large-scale fertility trends. Some of the interview participants hinted at this process when they described the schema linking masculinity with fathering many children as outdated. The popularity of that schema in urban Malawi has waned as social and economic conditions have changed and cultural shifts meant that men gained primary responsibility for earning sufficient wages to provide for their family (Silberschmidt 2001). Data from this cross-sectional study are not well-suited to examine variation over time, however other studies have explored those kinds of macro historical trends in conceptions of masculinity (Phiri 1983; Vaughan 1987; Davison 1993; Morrell 2001; Pattman 2001; Silberschmidt 2001; Praz 2007; Hunter 2010). Fertility research could benefit from further examination of historical shifts in masculinity schemas.

Finally, inter-community differences in masculinity schemas could be part of the explanation for variation in fertility outcomes across communities. The limited scope of this study means that the data are not appropriate for between community comparisons. There is suggestive evidence in existing literature, however, that illustrates how masculinity schemas may contribute to inter-community differences in fertility outcomes. For example, Hollos and Larsen (2004) describe two different types of marital relations evident in the Pare community in northern Tanzania. 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 conceptions of a desirable life course that they describe are fundamentally linked to two different conceptions of what it means to be a man. They identify two different collective constructions of masculinity and demonstrate that those cultural schemas are associated with men's fertility preferences and behaviors. In general, differences between communities in the types of fertility behaviors that are commonly viewed as masculine may be part of the explanation for inter-community differences in fertility outcomes.

This proposed research agenda entails many challenges. 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, masculinity schemas cannot be studied apart from the larger gender systems in which they are embedded. The relative structural positions of men and women interact with schemas of masculinity (and femininity) to shape the context for individual actions. And finally, masculinity schemas will be meaningfully activated to guide behaviors at "conjunctures" (Johnson-Hanks et al. 2011) when individuals are faced with behavioral decisions. This means that in addition to studies that identify variable endorsement of schemas, fertility research would also benefit from in-depth studies that are attentive to the specific contexts in which masculinity schemas are activated.

Nevertheless, these challenges should not stand in the way of valuable research. The data presented in this paper show clearly that masculinity schemas are imbued with beliefs that are relevant to fertility preferences and behaviors. Additional research is needed to determine if and how these masculinity schema affect fertility outcomes.

Chapter 5

Conclusion

The three empirical chapters of this dissertation all investigate ideational aspects of gender systems. The first paper documented evidence of global influence on individual gender schemas. The second paper showed that Malawian men's attitudes about common gender schemas are related to their sexual health behaviors and their self-assessed risk of HIV. The final paper demonstrated that gender schemas that are common in contemporary urban Malawi are imbued with ideals relevant to men's fertility preferences and behaviors. Each of these studies provides strong initial evidence of associations that inspire many additional research questions and encourage the expansion of this type of research to other contexts.

Chapter 2, "Increasing Rejection of Intimate Partner Violence: Evidence of Global Cultural Diffusion," shows that trends in attitudes about intimate partner violence are consistent with the influence of global norms. The findings lead to questions about the avenues of diffusion that link individuals in low-income countries with gender schemas of the international community. They also encourage more in-depth research on when and how global norms are adopted, resisted, modified, and rejected by local actors working within their own cultural logics. Finally, the results provide motivation for further research on the behavioral effects of recent changes in gender attitudes. Additional research is needed in order to better understand whether

the trends in attitudes about intimate partner violence have any effect on the perpetration of such violence or on gender relations more broadly.

There are important lessons learned from this study for both researchers and policy makers. Scholars studying gender schemas must be attentive to the influence of global forces on local attitudes and beliefs. For qualitative researchers, for example, this means paying attention to individual perceptions of the origins of specific gender schemas and how the perceived origins influence the ways in which those schemas are invoked. Quantitative researchers should be careful about the potential influence of social desirability bias on responses to survey questions that reference global gender schemas. Policy makers should be somewhat encouraged by the finding that global attention to the issue of violence against women is having an effect on individual attitudes. At the same time, however, they must insist on additional research that tests the effectiveness of various diffusion mechanisms and should demand examination of whether there is a link between changing attitudes and changing behaviors.

Chapter 3, "Men's Gender Attitudes and HIV Risk," demonstrates that there is an association between gender attitudes and sexual health behaviors among young men in urban Malawi. The data are not sufficient, however, to test whether this is a causal connection. Much more research is needed to investigate whether changing gender attitudes leads to changes in sexual health. Also, the data only include measures of individual gender attitudes, but since gender schemas are shared understandings, the results inspire additional questions about the relative influence of individual gender attitudes versus community-level gender schemas on sexual health behaviors. As answers to these additional questions are pursued, the populations under study must also be expanded because constructions of gender are context specific and findings from one sample cannot be generalized.

The results have several implications for researchers and policy makers. First, for researchers, the study adds to a growing body of evidence that individual gender attitudes can be measured using quantitative survey methodologies. Much of the research in sociology on gender schemas relies on qualitative data collection. While the measurements used in this study are far from perfect, they demonstrate that the study of the ideational aspects of gender systems need not be left to those using qualitative research methods. For policy makers, the study findings show that recent attention to gender schemas in reproductive health programming is warranted. Given that this is a relatively new type of programming, implementers should include rigorous evaluations of their programs that are designed to influence gender attitudes and thereby change sexual health behaviors.

Chapter 4, " 'A Real Man is Recognized by What He Does': Schemas of Masculinity and Fertility," issues a call for research on the relationship between masculinity schemas and men's fertility preferences and behaviors. The paper documents that, in urban Malawi, masculinity schemas are a source of cultural scripts available to guide men's fertility. Additional research is needed to test whether these gender schemas do indeed influence men's preferences and behavioral choices regarding reproduction. The findings also inspire questions about whether shifting conceptions of masculinity have played a role in historical fertility transitions, or whether they will influence future fertility trends. Finally, cross-cultural comparisons of the relationship between masculinity schemas and fertility behavior would further enhance our understanding of this social process.

For both researchers and policy makers, the main lesson learned from the analysis in the final empirical chapter is that masculinity schemas are relevant to discussions about fertility. Policy makers who promote family planning must consider masculinity schemas as a potentially

important source of motivation for men's fertility behaviors. Programs encouraging the use of contraception, birth spacing, and couple communication about reproduction will likely be more effective if the influence of social norms regarding masculinity (and femininity) is taken into account.

In summary, while the conclusions that can be drawn from these empirical investigations are necessarily limited in scope, together the three studies illustrate the potential importance of ideational aspects of gender systems for understanding social processes and individual behaviors. Persistent gender inequality is supported by systems of beliefs and values that legitimate that inequality. Past research has documented the contribution of structural gender inequalities to negative health and demographic outcomes. Additional research is needed to further investigate the role of ideational elements of gender systems in shaping health and demographic behaviors.

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