

Marital Transitions in sub-Saharan Africa: Cultural Diffusion or Economic Adaptation?¹

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ABSTRACT

Contrary to the expectation of “early and universal marriage” two decades ago, many African countries have now entered a new demographic regime marked by lower prevalence of marriage. This transformation is vital to demographic and socioeconomic change in the region and, accordingly, there is interest in assessing its future course and root causes. Our paper explores these root causes, focusing on whether transitions are economically versus culturally driven.

Our empirical strategy is to triangulate evidence from both descriptive and correlation analyses. The added value of our descriptive analyses is to disaggregate change in the total prevalence of marriage into change in “*entry*” versus “*exit*” from marriage. More broadly, inferences about root causes are made indirectly from evidence about the life-course, social, and geographical location of these transitions: we expect culturally-driven transitions to unfold relatively steadily while economically-driven transitions will be more uneven across each of these three dimensions.

The analyses are based on 75 DHS survey data from 32 sub-Saharan countries. The results suggest that African marital transitions occur in a multi-phasic sequence, in terms of both the process itself and its determinants. In terms of process, the transition begins with delayed entry into marriage and is gradually followed by increasing exit from marriage. In terms of determinants, urbanization was the first driver (affecting first delay and now exit from marriage), and is now followed by increased TV exposure and labor-force involvement of young women. Although much of the evidence suggests a cultural influence, it fails to indicate a mechanical and ubiquitous adoption of global marital norms.

¹ The first, third and fourth authors are based at Cornell University and the third at the University of Montreal. Some of the work in this paper is based on previous work by the first and second authors and have benefited from comments by many colleagues. The new analyses in the paper are based on data from Demographic and Health Surveys (DHS) and we acknowledge this support. Part of the work in this paper was supported by the Cornell Population and Development Program in the Department of Development Sociology, International Students and Scholars Office, and Graduate School. Remaining errors are ours.

INTRODUCTION

Recent studies show widespread changes in marriage across the developing world including sub-Saharan Africa (Lloyd 2005). Whereas marriage in Africa could aptly be described two decades ago as early and universal (Goldman and Pebley 1989), the region is now transitioning into a new regime marked by lower prevalence of marriage: According to the Demographic and Health Surveys (DHS) data, a majority of African countries today show at least one third of women between the ages of 25-29 to be unmarried (DHS 2008).² Given the centrality of marriage to household economy and child well-being, these new trends could spur broader change in economic and demographic behavior and, accordingly, there is great interest in understanding the roots of current marital transitions in the region (Calvès 2007; Ikamari 2005; Tilson and Larsen 2000; Qian 1998; Malhotra 1997; Gage and Bledsoe 1994; Isiugo-Abanihe 1994; Locoh 1994; Pilon 1994; Gage and Meekers 1993; Antoine and Nanitelamio 1991; Antoine and Nanitelamio 1990). A prominent question in this research is whether African marital transitions are culturally or economically driven, i.e., the extent to which they stem from the diffusion of global culture or from changes in the economics of marriage.

Rigorous answers to this question are difficult. Not only are African countries diverse, but major social changes often reflect multiple influences interacting in subtle ways that cannot be fully captured by standard correlational investigations. Such over-determination is especially likely for marriage, which is a joint result of at least two processes – entry into and exit from marriage – each of which may have distinct and multiple causes. Correlation studies are further limited in informing causal inference if choices about marriage are made endogenously with decisions about women’s schooling, employment, and fertility (Jah 2009a; Glick and Sahn 2001; Axinn and Thornton 1992).

Given such limitations of correlation studies, research on the causes of marital change can benefit from combining correlational and descriptive evidence. Descriptions can help causal understanding in two ways. One is through *disaggregation*: change in marital prevalence is best understood when broken down into its two components, changes in “entry” and “exit” from marriage. More directly, detailed descriptions can also facilitate *indirect inference*, where patterns of change shed light on causes. In other words, one can infer *why* marital transitions occur by examining *how* they unfold. One central argument in this paper is that marital transitions will unfold differently depending upon whether they are driven by economic or cultural forces: Where transitions are culturally-driven they will tend to unfold across the life-course (i.e. impacting both marriage entry and exit), the social structure and economic context. On the other hand, economically-driven transitions will unfold unevenly across the life-course, inordinately affecting entry into marriage, lower socioeconomic status (SES) groups, and declining economies.³ In

² The specific percentages in these countries were: Kenya (31%), Sudan (32%), Tanzania (32%), Mauritania (33%), Lesotho (33%), Ghana (34%), The Comoros (35%), Uganda (37%), Cameroon (38%), Madagascar (43%), Côte d’Ivoire (47%), Rwanda (60%), Liberia (65%), Botswana (66%), South Africa (66%), the Congo Brazzaville (72%), Namibia (81%), Gabon (83%), Mozambique (84%), and the Central African Republic (86%).

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short, variability in life-course, social and geographical locations of marital change can serve to shed light on the causes of this change.

Based on this premise, our paper describes the patterns of recent marital changes in sub-Saharan Africa. Analyses are designed to answer questions about the life-course, social and geographical location of these marital transitions: (1) In terms of life-course location, are the recent declines in marriage in African countries driven primarily by change in “entry” versus “exit” from marriage? And does the change in entry or exit vary across different age cohorts? (2) In terms of social location, are the declines in marriage affecting all socioeconomic groups? (3) In terms of geographic location, how do the declines vary according to country characteristics that govern social/marital transformation? Are these declines associated with economic versus cultural context?

BACKGROUND

Research interest in Africa’s marital transitions can be motivated by both intrinsic and extrinsic grounds. Extrinsicly, African marital transitions can be seen as a mirror or driver of broader social change. Because they are a key institutional setting for resource accumulation and redistribution (Lesthaeghe, Kaufman, and Meekers 1989), marital households shape fundamental outcomes such as fertility, women’s status, children’s wellbeing, or socioeconomic inequality. In the realm of fertility determination, marriage affects exposure to intercourse as well as negotiation of fertility preferences (e.g. Bongaarts, Frank, and Lesthaeghe 1984; Davis and Blake 1956). Despite the growing incidence of non-marital births in the region, marriage is typically associated with higher odds of fertility (Smith 1983). To be sure, this association could be spurious, if more fecund or pro-natalist individuals are more likely to marry and stay married. Yet even such a non-causal link is informative insofar as a decline in marriage may still signal a growing willingness to delay reproduction. Marriage also affects the so-called “quality of children” through the accumulation and redistribution of resources, whether money, parental time, or social networks (McLanahan 2004; Eloundou-Enyegue and Stokes 2002). Variation in parents’ marital status will thus shape resource inequality among African children, especially if partners are increasingly selected on the basis of socioeconomic status (Eloundou-Enyegue and Stokes 2002)⁴. Early marriage, insofar as it affects employment, can also reinforce socioeconomic inequality in so far as it promotes profitable employment and where it differentially locates women in unprofitable employment sectors even as these effects vary substantially across countries and sub-regions (Jah 2009a). Marital transitions will additionally affect intra-gender inequality (Jah 2009a) and gender relationships, as declines in the prevalence of marriage transform the normative life course of women, or as age and education gaps between partners shrink (Eloundou-Enyegue and Calvès 2006; Gage-Brandon and

⁴ Eloundou-Enyegue and Stokes (2002) find that Cameroonian children of rural background are more likely to be fostered, mitigating the effect of childhood inequality, if their mothers are married than not married.

Meekers 1993; Antoine and Nanitelamio 1990) or as new spouses relocate from parental homes (Williams 1989).

Beyond these extrinsic influences, marriage is important in itself as a life-course event. For that reason, changes in its timing, likelihood, and forms have drawn research interest worldwide, with recent studies from developing countries (Calvès 2007; Ikamari 2005; Kuate-Defo 2004; Schwartz and Mare 2003; Jones 2002; Tilson and Larsen 2000; Timaeus and Reynar 1998; Jones 1997; Malhotra 1997; Meekers and Calvès 1996; Gage and Bledsoe 1994; Isiugo-Abanihe 1994; Karanja 1994; Locoh 1994; Pilon 1994; Meekers 1992; Antoine Nanitelamio 1991; Brandon 1990; Casterline, Williams, and McDonald 1986; Hirschman 1985; McDonald 1985) adding to evidence from earlier transitions in Western countries (Mclanahan 2004; Yakibu 2004; Raymo 2003; Schwartz and Mare. 2003; ; Goldstein and Kenney 2001; Retherford and Matsukura 2001; Lewis and Oppenheimer 2000; Qian 1998; Oppenheimer, Blossfeld, and Wackerow 1995; Blossfeld and Huinink 1991; Lichter, LeClere, and McLaughlin 1991; McDonald 1985; Cherlin 1980).

The contributions from African settings are a particularly welcome addition, given the diversity of marriage forms and the complexity of the marriage process in this region (Antoine and Nanitelamio 1991; Meekers 1992). Seminal studies have begun to take stock of these transformations, drawing evidence from selected cities or countries and focusing on selected sub-processes, whether entry into marriage, type of marriage, or marital stability and divorce for instance (Ikamari 2005; Kuate-Defo 2004; Tilson and Larsen 2000; Timaeus and Reynar 1998; Meekers and Calvès 1996; Gage and Bledsoe 1994; Isiugo-Abanihe 1994; Karanja 1994; Locoh 1994; Pilon 1994; Antoine and Nanitelamio 1991; Brandon 1990;).

Much of this early literature has emphasized entry into marriage and marriage forms, including the prevalence of polygyny, outside wives, multiple girl-friends and variation in these forms over time (Timaeus and Reynar 1998; Meekers and Calves 1996; Karanja 1994; Locoh 1994; Pilon 1994). They have highlighted the phenomenon of sugar daddies, with a possible emergence of sugar mommies as well, although the transient nature of these relationships complicates efforts to estimate prevalence (Kuate-Defo 2004; Meekers and Ahmed 2000; Meekers and Calvès 1996). Others studies have documented historical declines in the age at marriage, linking these to increased bridewealth (Isiugo-Abanihe 1994), education (Ikamari 2005; Gage and Bledsoe 1994), and a new marriage culture (Antoine and Nanitelamio 1991). Isiugo-Abanihe (1994) for instance, drew attention to the significance of bride-wealth in delaying formal marriage. Using quantitative and qualitative evidence from among the Ibos in Nigeria – a setting with high and variable bride-price – he argues that high bride-wealth payments have contributed to delayed marriage but he notes other adaptations, such as elopement or cohabitation.

Economic difficulties in many countries also reduced the affordability of marriage even when bride-wealth and other related costs did not increase in nominal terms (Calvès 2007; Antoine and Nanitelamio 1991). While gains in women's education have been noted as a delaying influence; some of this influence is mechanical: As the modal length of education increases, many young women must increasingly choose between early marriage and continued schooling (Ikamari 2005

for Kenya; Raymo 2003 for Japan; Gage and Bledsoe 1994 for Sierra Leone; Blossfeld and Huinink 1991 for Germany), and there may be a growing tendency to choose the latter instead of the former (DHS).

These findings are consistent with economic theories of marriage that emphasize individual gains from marriage and expected sexual division of labor (Becker 1981, 1991). Within this framework, husbands specialize as income earners in the labor market while wives invest in household production. From this perspective, the current expansion of education in sub-Saharan Africa will tend to delay union formation. Yet, data from the DHS (2008) suggest that many young women drop out of school to get married. The percentage of marriage-related dropouts is particularly large in Eritrea (33.8), Chad (22.8), Nigeria (18.6), Mozambique (17.8), Comoros (12.9), Mali (12.3), and Tanzania (11.9), although some of this high prevalence could also reflect slow progression in the school system and poor prospects for educational and economic advancement (Lloyd and Mensch 2006).

Some of this delay is also related to demographic factors. Education-related postponement of marriage can promote further delays if young women experience a premarital birth and cannot marry the child's father (Meekers and Calvès 1996; Ikamari 2005). Education-related delays can ultimately lead to a tight marriage market and prolonged celibacy (see for instance Gage and Bledsoe 1994 for Sierra Leone and Retherford, Ogawa, and Matsukura 2001 for Japan).

Finally, some of the influence of education in delaying marriage is aspirational or cultural, insofar as education alters the life choices and marital preferences of women. More broadly, analysts note the emergence of a new marriage culture, marked among other things, by greater control of the marriage process by women, as a multi-city country analysis by Antoine and Nanitelamio (1991) suggests.

At the tail end of marriage, a few studies have examined marital stability, noting the influence of: bride-wealth payments (Isugo-Abanihe 1994 in Nigeria); women's status and control of domestic resources (Gage-Brandon and Meekers 1993 in Togo); the type of lineage and dominant religion (Kaufman and Meekers 1998 in 69 ethnic clusters in sub-Saharan Africa); adverse employment events (Eloundou-Enyegue 1999); early marriage and childlessness (Tilson and Larsen 2000 in Ethiopia); and marriage type (Pilon 1994).

Our contributions to the existing literature are threefold. First, like Gage-Brandon and Meekers' 1993 study, we explore both union formation and marital stability. To formally assess the relative contributions of these two complementary sub-processes, we use decomposition analysis to estimate how much of the change in the prevalence of marriage in various African countries has been driven by changes in "entry into marriage" (i.e. front-end processes) versus "exit from marriage" (tail-end processes). Our second contribution is to cover a wider range of countries than has usually been the case. While this panoramic overview lacks the depth of many field investigations (e.g. Antoine and Nanitelamio 1991; Isiugo-Abanihe 1994), it does help map broad trends, while highlighting similarities and differences in the region's recent marital transitions. Our third insight is in exploring the relative influence of cultural versus economic forces. Although previous studies have

investigated proximate influences (education, bride-payments, and childlessness) and economic context and unemployment (Calvès 2007), often at the individual level a broader assessment of cultural and economic influences is needed.

ECONOMIC AND CULTURAL ROOTS

Explanations of social change often pit economic against cultural influences (Lesthaeghe 1995; McDonald 1985). Under this contrast, economic explanations (Becker 1981, 1991) emphasize variability in individual responses and the role of changing material circumstances while cultural explanations (Lesthaeghe 1995; Lesthaeghe, Kaufman, and Meekers 1989; McDonald 1985) focus on broad-based transformations in norms. This contrast is of course simplistic. This is in part because individuals do consider both their economic circumstances and cues from their normative environment in making life choices (DeJong and Gardner 1981) but also because the normative environment itself can be thought of as a historical crystallization of material circumstances (Antoine and Nanitelamio 1991). This is also because a culture-versus-economy dichotomy overshadows other forces, including demographic factors (Meekers and Calvès 1996; Ikamara 2005; Tilson and Larsen 2000)⁵.

Nonetheless, an economic/cultural contrast offers a useful starting point for our analyses. First, it highlights two divergent possibilities for the future course of marital transitions, with economically-driven transitions expected to be ephemeral and reversible, while cultural transformations are more likely to be steady. Second, it yields two different implications for inequality: because they are uneven, transitions that are economically-driven tend to have greater disequalizing effects, especially if marriage disproportionately declines among the poor or if it becomes more assortative on the basis of resources. Third, the economic/cultural contrast helps connect marital transitions to other changes in the economy and culture. Particularly relevant here are the generic processes of “cultural globalization” as well as the African economic crises and structural adjustment of the 1990s. Because cultural globalization in Africa has occurred in both situations of economic growth and economic decline, comparative studies within this region can explore the relative influences of cultural and economic factors. Empirical attempts to estimate these influences meet several challenges. The most generic challenge includes the elusiveness of causation in social science research (Greene and Merrick 2005; Axinn and Thornton 1992; Robinson 1950). Such difficulties arise from potential problems of reverse causation, multicollinearity, or spurious or endogenous associations. There are further difficulties stemming from the diversity and diversification of African experiences (Kandiwa 2008) and the fuzzy boundaries between the economic and

⁵ Qualitative research suggests how African prospective migrants to Europe will delay marriage until these plans are clearly thwarted, or until they are successful and can secure a steady living. Premarital childbearing not immediately followed by marriage to the child’s father has also been found to reduce subsequent marriage chances (Ikamari 2005; Meekers and Calvès 1996).

cultural influences (JAH 2009b)⁶. Fourth and finally, the prevalence of marriage is a composite outcome of multiple processes, some of which may reflect normative change (e.g., pronatality of the African family system, stigma associated with divorce) while others reflect economic conditions such as poverty that can delay the payment of bridewealth and setting up of a new household (Calvès and Martel 2004; Isiugo-Abanihe 1994). All these factors serve to delay formal marriage. Indeed, failure to recognize marriage as constitutive of several processes can result in misleading interpretations, with implications for demographic research and policies derived from such research.

Given such obstacles to direct estimation, our analytical approach relies on two principles. The first is *disaggregation*, i.e. complex social changes are best understood by focusing on individual components. In the case of marriage, relevant components include front-end processes of entry, as well as tail-end processes of exit from marriage. Disaggregation of these two sub-processes is particularly appropriate here because entry and exit are mutually exclusive and complementary sub-processes. As a result, there is neither redundancy nor loss of information in studying them separately. The second principle underlying our analysis is the use of *indirect inference*, i.e., using data on patterns of marital transitions to infer causes: Depending on whether marital transitions are driven by economic or cultural influences, they will unfold differently over the life-course and across the social and geographic landscape. We expect culturally-driven transitions to unfold evenly and steadily across the life-course. In such cases, declines in marriage will result from both “entry” and “exit” from marriage and they will be observed in a wide range of socioeconomic groups, geographic area, and economic conditions. On the other hand, economically-driven transitions will be more uneven, i.e., they will more likely reduce entry (rather than exit) into marriage, affect low-SES groups and limited geographic area, and emerge in response to changing economic (rather than cultural) conditions. Monitoring the patterns of marital transitions thus serves to inform speculation about the likely causes of these transitions.

Our analytical approach -relying on transition patterns to infer causes- is clearly open to criticism. Indeed, each of the three criteria (life-course, social, and geographic locations) used to establish a correspondence between patterns of marital transitions and their causes is open to criticism. In terms of life-course location for instance, while we assume that culturally-driven transitions will evenly affect both entry and exit from marriage, one can easily imagine situations where cultural-driven transitions would inordinately affect entry into marriage, rather than exit from marriage. One such situation arises when one has a sub-cultural change that takes hold only among younger segments of the population. In terms of social location, ethnic and religious differences may work to induce differentiated responses- that are more culturally- than economically-related- within any one socio-economic group. In

⁶ In her study of the extent and sources educational inequality of girls in Muslim settings in Africa, Jah (2009b) finds gross inequality associated with religion to dissipate once socio-economic and geographic factors are controlled for with the net effect of religion smaller than that of other socio-economic factors. Further, net inequality is visible at the secondary but absent at the primary level and follows an east-west gradient, increasing from South-East to West Africa.

terms of geographic location, the differential exposure to cultural globalization that exists between rural and urban communities can likely induce uneven responses.

Further, cultural globalization can also induce uneven responses cross-countrywise in ways that responses manifested in rural settings in one country could resemble those manifested in urban settings of another. Although some of our analyses attempt to adjust for these influences by controlling for ethnic and urban composition, these various possibilities imply that none of the criteria used to infer the causes of marital transitions is foolproof. Only together can they shed light on causes of marital transitions, and even in this case, the inferences remain tentative. The value of the approach used in this paper is not tied to the strength of any single criterion but to its double triangulation of (1) life-course, social, and geographical patterns of marital change and (2) descriptive and correlational data. These points are discussed further in the conclusions.

Based on the preceding review of the literature and our general premise, we hypothesize that recent marital transitions in sub-Saharan Africa were economically-driven. As such, they (1) inordinately affect entry rather than exit from marriage; (2) affect lower SES groups more than higher SES groups, and (3) be associated with economic conditions, rather than cultural influences.

METHODS

Data

The data used to test these hypotheses come from Demographic Health Surveys (DHS⁷) from multiple countries. The most basic analyses cover 35 countries, but the more elaborate historical analyses focus on a smaller subset of countries (21) where multiple surveys were fielded over the last 15 years or so. While this smaller subset does not represent the region in a statistical sense, it is diverse in both marital and socioeconomic regimes: it includes declining, stagnant, as well as growing economies (National Research Council 1993). The analyses for most countries cover the 1990s and early 2000s, a time of presumed acceleration in cultural globalization in Africa, as television ownership, phone, and internet connectivity increased (World Bank 2006). Furthermore, this period was also marked by great variability in economic trends, with some countries recovering and others still reeling from the 1980s crises (Eloundou-Enyegue and Stokes 2002; National Research Council 1993).

Measures

The main outcome of interest is the prevalence of marriage. To understand how/why it has changed in recent years, this outcome is disaggregated into its two components. The first includes “front-end” statuses (singlehood and cohabitation) that reflect processes of “entry” into marriage. The second includes “tail-end” statuses (divorce and widowhood) that reflect “exit” from marriage. These statuses were obtained from DHS questions on marital status, i.e., whether women were 1

⁷ DHS surveys collect nationally representative household information on a wide range of issues, including health, education, and nutritional status. The surveys have large sample sizes (usually between 5,000 and 30,000 households) and typically are conducted every 5 years.

“never married”, 2 “married”, 3 “living together”, 4 “widowed”, 5 “divorced”, 6 “not living together”, or 7 “missing”. The first and third categories were considered “front-end statuses” while 4, 5, and 6 were “tail-end” statuses. While not critical for our outcome, we do recognize that our tail-end status may be underestimated due to high remarriage rates. The “missing” category was eliminated and the percentages for other categories adjusted accordingly. The percentage of missing cases was very small, and seldom exceeded 0.1 percent.

Our main predictors included educational attainment, cultural influences, and economic conditions. Educational attainment was measured by three dummy variables to address the issue of non-linearities. The three categories contrasted were women with “no schooling,” “some primary,” and primary completed/some secondary.” The cultural influences explored included TV ownership, urbanization, and growing labor force participation of young women aged 15-24. The main economic influence explored was the change in national GNP per capita.

Key control variables included age group and ethnic fractionalization, a factor acknowledged as important in previous studies (Kaufman and Meekers 1998; Meekers 1992). The specific index of fractionalization came from the Ethnographic Atlas and socio-demographic indicators calculated from the DHS.

Analytical Approach

Analyses focused both on *current* prevalence and *changes* in prevalence between consecutive DHS surveys. The most basic analyses were descriptive and meant to take stock of the different marital regimes found in the region. The other analyses provided evidence about the patterns of marital change, in terms of life-course location, social location, and geographical location. They were conducted as follows:

(1) ***Life course location***: To describe the life-course location of marital changes, we use decomposition analyses that show how much (in percentage terms) of the change in prevalence of marriage was driven by change in entry versus exit from marriage;

(2) ***Social location***: To describe the social location of African marital transitions, we used statistical comparisons that show the extent to which marital changes are socially concentrated among the less educated populations; While it would be desirable to look at the social location of change in both entry and exit from marriage, our analyses were confined to a front-end variable, specifically, the median age at marriage. We focused on change among women aged (15-49) and examined the extent to which these historical changes in median age at marriage varied across the three different educational categories.

(3) ***Geographical location***: To describe the geographical location of marital change, we used multivariate regression analyses that show the extent to which marital changes were systematically associated with our selected economic and cultural features of countries.

FINDINGS

Marital regimes

We begin with an overview of the prevalence of marriage, and the diversity of marital regimes across the study countries (Table 1). Using DHS data, we estimated the percentage of adult life (15-49) spent in competing marital categories of interest in this study, including “front-end” categories such as singlehood and cohabitation (column 1), marriage itself (column 2), and “tail-end” statuses such as divorce and widowhood (column 3). Based on these percentages, countries were classified into three regimes, using arbitrary but round cutoff points (specifically whether women spent three quarters, two thirds, or half of their adult lives within marriage). The first regime is marked by high prevalence of marriage, with women being married on average for nearly three quarters of their adult lives. This regime is mostly found in West Africa, particularly in Niger, Mali, Guinea, and Senegal. In the second regime, the prevalence of marriage is lower – women only spend 2/3 of their adult life within marriage and “tail-end” statuses (divorced and widows) are relatively prevalent.⁸ Only 8 countries fall under this situation. In the third and final regime women, on average, now spend only half of their adult lives within marriage. Much of this decline in time spent within marriage reflects delays in marriage, as women now spend about 40% of their adult lives in pre-marital statuses. It is important to note that there is substantial cross-country variation within each of these regimes.

[Table 1 about here]

Despite such variability, the patterns in Table 1 show a logical sequence in marital transitions. For the **22** countries with multiple surveys, **14** stayed in the same regime across all survey periods, be it the first regime (notably Senegal, but also Niger, Mali, Guinea, Burkina Faso, Chad, Malawi, Nigeria, and Ethiopia), the second regime (Eritrea) or the third regime (Kenya, Rwanda, Namibia, and Mozambique). However, a few (8 in total) countries transitioned across regimes. The most common shift was from the first to the third regime (Benin, Cameroon, Ghana, and Uganda) but Zambia moved from first to second, while Tanzania, Zimbabwe and Madagascar moved from the second to the third regime. Importantly, the historical sequence in which countries moved from one to the next seems logical and no evidence of a reversal (i.e. across regimes) is found among the study countries.

Life course location

Where the prevalence of marriage declined, we estimated how much of these changes were driven by delayed entry into marriage versus increases in divorce and widowhood. Table 2 summarizes these results. The table ranks countries according to the severity of their marital declines (column 2), beginning with the largest declines and ending with countries where marital prevalence increased. For each country inter-survey period, the table shows the nominal change in front-end (column 1), marriage (column 2), and tail-end statuses (column 3). The last column shows, in percentage terms, how much of the total change in the prevalence of marriage was driven by delays in marriage, rather than exit from marriage. As the findings indicate, 14 country inter-survey-periods (37% of the total) experienced a

⁸ Although the data in the table does not show this disaggregation, countries differ in whether this tail-end prevalence reflects widowhood or divorce.

substantial decline (at least 3 percentage points) in marriage, with the majority (19 or 50% of all cases) experiencing mild or no change, and few (5 or 13% of the cases) experiencing an increase of at least 3 percentage points. For countries experiencing no change (or a mild one), a decomposition analysis was meaningless and thus was not performed.

Where the prevalence of marriage declined, the trend (in all but one case) was driven almost entirely by delays in marriage, with these delays accounting anywhere from 68% to 164% of the total decline, with an average of (102%). Only in Zambia 1992-1996 was divorce/widowhood the main driver of the decline in marital prevalence. The same general conclusion holds true in situations where the prevalence of marriage increased: much of the trend was driven by front-end changes in entry into marriage rather than exit from marriage. In terms of our general hypothesis, this inordinate influence of “front-end” changes in driving the transition in marital prevalence is more consistent with an economic influence, rather than a broad cultural retreat from marriage.

[Table 2 about here]

Social location

The social location of marital change – the extent to which the changes in marriage pervade all age and socioeconomic groups – is important for two reasons. First, it serves as a criterion in evaluating the plausibility of cultural versus economic explanations for African marital transitions. Second, it will likely affect the future course and disequalizing effects of marital transitions. If the change in marriage only occurs at younger ages, their effects on the normative life course of women will be milder than they would be under a more widespread retreat from marriage. Furthermore, if marriage declines disproportionately among lower SES groups, this can exacerbate economic inequality among children. For these reasons, we investigated one aspect of social location, specifically the extent to which the age at marriage changed uniformly across all education groups. Ideally, analyses should cover multiple aspects of social location including multiple indicators of marital change and multiple dimensions of socioeconomic status. Future analyses will be extended in this direction but this first analysis covers an important aspect of women’s socioeconomic status, as well as age at marriage, which also captures an important aspect of marital change.

First, we examined the differences in median age at marriage across education categories. The results (Appendix Table 1), show the delaying effect of education: Women with some secondary schooling marry anywhere from 0.5 (Central African Republic) to 8.5 (Sudan and Senegal) years later than those with no formal schooling. The average difference for all the country-periods in the study is 4.6 years, as women marry at 17.1, 18.3, and 21.8 years of age, depending on whether they have no formal schooling, some primary schooling, or some secondary schooling, respectively.

A second and more relevant analysis looked at the effects of education on *change* in marital prevalence. In essence, do recent delays in marriage occur inordinately among more educated women? To answer this question, we estimated two multivariate regression models for the effects of education on the change in median age at marriage, adjusting for basic control variables (Model 1) then

additionally for the cultural and economic influences of interest in this study (Model 2). The results (Table 3) show no education effect. In other words, where the median age at marriage changed in recent years, the changes were uniform across all education groups. In essence, contrary to the evidence from the analysis of life-course location, the patterns of social location are more consistent with a cultural - rather than economic - influence.

[Table 3 about here]

Geographic location

The final analysis focused on the geographic patterns of African marital transitions. The idea was to examine the association between marital change and cultural/economic context. This correlational analysis is of course not sufficient to establish causation, but it is an additional criterion that (combined with the other two) serves to evaluate the plausibility of cultural versus economic explanations for marital change in Africa. The first analyses focused on the multivariate relationship between current prevalence of marriage and various country characteristics. Reflecting our general hypothesis, the main country characteristics included both economic variables, mostly GNP per capita and cultural variables mostly global connectivity as indicated by urbanization and TV ownership but also normative change in women's roles as reflected in labor force participation for younger women). The results are presented in Table 4. Analyses explored the effects of cultural and economic variables on the overall prevalence of marriage (Model 1) but for greater insight, we further explored how these variables specifically affected "front-end" processes (Model 2) versus "tail-end" processes (Model 3).

[Table 4 about here]

Consistent with general modernization theory, the results in Model 1 show marriage to be less prevalent in more urban and economically advanced countries. Surprisingly, however, TV ownership is associated with higher prevalence of marriage once adjustment is made for country economic performance. The disaggregated results (Models 2 and 3) show that these various factors matter because they influence entry into marriage: both favorable economic conditions and urbanization delay entry into union but seem to have little effect on exit from union. Again, increased TV ownership seems to have a net positive effect on entry into marriage, a result to which we return later. Finally, the effects of ethnic fractionalization are noteworthy. This variable is associated with a high prevalence of marriage through its effects on *both* accelerating entry into union and averting exits. One possible interpretation is that in highly fractionalized countries, marriage may be more endogamous and this facilitates both the marital process and union stability. There are plausible reasons why this would be the case. Endogamous unions are easier to enter because of shared expectations (by partners) about the nature of the process and because of reduced resistance from parents and other relatives. The same factors also contribute to union stability. However, this interpretation is susceptible to ecological fallacy (Robinson 1950). For this interpretation to be valid, our macro-level analyses must be corroborated by micro-level evidence on the patterns of marriage transitions among endogamous and exogamous unions within individual countries.

In addition, a more informative analysis must go beyond a cross-sectional perspective and examine the *change* in marriage in response to contextual change. This more dynamic (but still macro-level) analysis was attempted and complements the micro-level analysis of the relationship between economic crisis and union formation by Calvès (2007). The results are presented in Table 5. The table shows the effects of changes in cultural and economic variables on the prevalence of marriage as a whole (column 1) and on the disaggregated results for the prevalence of pre-marital (column 2) and post-marital (column 3) statuses.

[Table 5 about here]

Looking first at the overall prevalence of marriage, the results indicate that favorable economic trends tend to boost the overall prevalence of marriage, although this result is only significant at the 0.10 level. This finding is consistent with studies indicating that temporary economic hardships compromise entry into union (Calvès 2007) but it should also be contrasted with the earlier finding in Table 4, which indicated an inverse correlation between level of economic conditions and prevalence of marriage. Together, these two findings may reflect an important distinction between long-term and recent effects. Over the long-haul, economic growth may work to reduce marriage as predicted by theory (Becker 1991) perhaps through women's (especially the more educated) increasing probability of being employed for longer durations but in the short-term, episodes of favorable economic conditions facilitate marriage while temporary economic downturns will reduce it. Alternatively, as we suggest for the case of urbanization variables, such results may also suggest stage-dependency: possibly, the determinants of marital change vary depending upon the stage in marital transitions. As was shown in the case of fertility transitions, factors that initiate the transition can differ from those sustaining it or affecting its pace (e.g., Bongaarts and Watkins 1996).

The results in Model 1 also indicate the importance of cultural variables. Contrary to Table 4, however, urbanization is not the main factor when analyses shift to a dynamic framework. Rather, the growing TV ownership and labor force participation of young females are more influential, and associated with lower prevalence of marriage. Everything else equal, a unit increase in TV ownership is associated with a 0.3 percentage point reduction in the prevalence of marriage, while a unit-increase in the labor force participation of young women is associated with a nearly 0.2 percentage point reduction in the prevalence of marriage (sig at 0.10). Again, a comparison of these results with the aggregate findings in Table 4 suggests the importance of distinguishing between long-term and recent influences. Some of this distinction is captured by controlling for initial economic and cultural conditions (table 5). For instance, while urbanization has a long-term effect of depressing marriage ($\beta=-0.13^*$), its short-term effect is non-significant. Likewise, while the initial effect of TV exposure is to boost the prevalence of marriage, recent growth in TV ownership actually works to reduce this prevalence. Conversely, while young women's employment has no effect on changes in marriage or its composite sub-processes in the long run, its short-term effect depresses marriage. Thus, there is value in distinguishing between historical long-term influences and shorter-term change associated with the more recent changes in cultural and economic environment during the 1990s.

There is further value in disaggregating analysis of marital change into changes in entry versus change in exit from marriage. These disaggregated analyses are presented in models 2 and 3 (Table 5). Results indicate that recent improvements in economic circumstances increase marital prevalence through reduced divorce/widowhood, rather than through accelerated entry into union. Likewise, the effects of recent urbanization are to promote exit from marriage rather than delaying entry. Finally, the recent growth in TV ownership and young female employment are mostly delaying entry into union, rather than affecting exit.

Overall, the value of combining disaggregation with historical analysis is to refine understanding of possible reasons why the prevalence of marriage may be changing in the region. Findings that would appear surprising under an aggregate and cross-sectional analysis are clarified by the detail afforded by disaggregation and historical analysis. The case of TV exposure is one illustration. An aggregate cross-sectional analysis for this variable suggests, surprisingly, that TV ownership is associated with increased prevalence of marriage ($\beta=0.33^{***}$ in Table 4). However, the more detailed analyses in Table 5 indicate that while initial levels of TV exposure are indeed associated with higher prevalence of marriage ($\beta=0.23^{**}$), recent improvements in TV ownership are in fact associated with declining prevalence of marriage, mostly through delayed entry into union. The case of urbanization effects is another example. While aggregate cross-sectional results show, as expected, an inverse association between the percent of population urban and the prevalence of marriage ($\beta=0.336^{***}$, table 4), the more detailed analyses in table 5 clarify the pathways and currency of this influence. The evidence on this table suggests that while the initial effects of urbanization were to reduce the prevalence of marriage through delayed entry ($\beta=.169^{**}$ model 2 of table 5), the more recent influence of urbanization is to reduce the prevalence of marriage by increasing exit from unions ($\beta=0.312^{**}$, model 3 of table 5). Such stage dependency is likely to be relevant for other cultural and economic predictors as well.

More broadly, the results in Table 5 suggest a multi-phasic transformation with at least two main stages. In the early stages, the declines in the prevalence of marriage are driven by delayed union formation, mostly under the influence of urbanization (and perhaps girls' schooling). At later stages, further declines in union formation still occur but they are mostly driven now by increased TV exposure and female employment. At the same time, new changes emerge at the "tail-end" of marriage, still under the influence of urbanization. It thus seems that urbanization has been the leading factor (in a temporal sense) in reducing the prevalence of marriage and that its influence has begun at the "front-end" of the process before being eventually felt at the "tail-end" as well. The more recent cultural transformations, whether TV exposure or employment for young female are adding to the change but so far they are mostly affecting entry into marriage. Put differently, urban women appear to have led the change, first in delaying marriage, then in increasingly retreating from it. Other women are now following suit and delaying marriage, perhaps influenced by normative changes induced by either (a) increased acceptance of delayed marriage promoted by vanguard urban women, (b) increased TV exposure, or (c) increased desirability or acceptability of longer school duration or early labor force participation for young women. Yet, as some of the surveys and

qualitative evidence shows, unemployed women may be increasingly at a disadvantage in the marriage market (Jah 2009a), and a declining number of girls are willing to forego education in favor of early marriage (Lloyd and Mensch 2006).

Taken together, our results do not provide an unequivocal answer to the economic-versus-cultural debate on the roots of marital transitions. For instance evidence from the first criterion (life-course location of marital transitions) show a sequential change (first a decline in entry into marriage, then an increase in exit from marriage). While this uneven change is more consistent with an economic transformation, it is not inconsistent with a gradual cultural transformation wherein a new global culture catches on first with younger cohorts through entry into marriage and then later with older cohorts through exit from marriage. Indeed, the preponderance of evidence seems to favor a multi-phasic cultural change. The change is *multi-phasic* in the double sense that (1) it occurs at the front end before emerging at the tail end, and (2) the early drivers such as urbanization are gradually supplemented by other influences, mostly growing TV exposure and labor force involvement of women. Clearly, many of these influences are interrelated and mutually reinforcing in ways that cannot be fully captured by this macro-level and multi-country comparison. Detailed historical investigations of individual countries such as conducted by (Jah 2009a) are thus an indispensable complement of the analyses presented here, as is the event history study by Calvès (2007).

CONCLUSION AND DISCUSSION

Many African countries are currently enmeshed in a web of social transformations in the form and functions of families, including a decline in the prevalence of marriage. Although this decline itself has been duly noted, its roots remain subject to debate. Our study sought to contribute to an emerging literature on sub-Saharan marital transitions, by exploring some of their root causes, and specifically, the relative influence of cultural and economic forces, and how these factors may be combining or changing over time.

Given the difficulty in directly estimating complex and multifaceted social processes and the inability of standard correlation investigations to establish causality, our analytical approach involves triangulation of two principles: (1) Disaggregation of marital prevalence into its simpler sub-processes of entry into and exit from marriage and (2) Indirect inference about the causes of marital transitions from life-course, social, and geographical patterns of marital change. We extend existing literature by exploring changes in both union formation and marital stability. We also extend existing literature by mapping broad trends and highlighting similarities and differences in recent marital transitions from a larger sample of countries than in previous research. Finally, we extend existing literature by determining, through decomposition, the relative contributions of cultural versus economic forces to the changes in marital behavior, adjusting for some aggregate correlates of marriage.

Despite considerable country variability, results highlight three potentially different marital regimes, ranging from high, medium, to low prevalence of marriage in Africa. Although arbitrary, this regime classification is meaningful in that results

indicate a logical historical sequence in how countries transition across regimes without indication of reversals, with the most common shift being from the first to the third regimes. Much of the decline in marriage prevalence is accounted for pre-marital statuses (delays in marriage).

This aggregate descriptive evidence is corroborated by the historical decomposition analysis of the life course patterns of the marital changes. In all cases where the prevalence of marriage changed (except in Zambia 1996 where the divorce/widowhood accounted for the decline), the changes were entirely driven by delays in marriage rather than exit from marriage. This inordinate influence of “front-end” changes in driving the transition, as suggested by both the aggregate and decomposition evidence, is consistent with an economic influence rather than a broad cultural retreat from marriage, and supports our first hypothesis. Yet, equally plausible is the idea that this front end influence can stem from a gradual cultural influence whereby changing marriage norms catch on first with younger cohorts before permeating through older cohorts in tail-end changes. Indeed, our results show a significant cohort effect on the prevalence of marriage, with prevalence significantly higher as one moves across older women cohorts.

We confirmed this cultural plausibility from our second hypothesis which tested the social location of marital change for understanding the future course and disequalizing effects of marital transitions. Whether judged by descriptive evidence or by the more relevant analysis of the effect of education on *change* in marital prevalence, we find no evidence that recent marriage delays occur inordinately among more educated women, implying that recent changes in age at marriage are uniform across all education groups. This finding holds regardless of sub-regional location in the continent, economic or cultural context, or temporal effects. The absence of a concentration of marital changes as measured by changes in median age at marriage within any one SES group suggests only a modest disequalizing impact of marital transitions on family and child economic wellbeing, at least in terms of educational attainment. Thus, in contrast to the life-course location evidence, the finding from patterns of social location supports a cultural rather than an economic influence.

This importance of cultural factors is further supported in part by our final analysis that explored the geographic patterns of marital changes in the continent, which combined with our earlier criteria, tests the plausibility of cultural versus economic explanations. Consistent with modernization perspectives and our economic explanation, favorable economic conditions are associated with lower marriage prevalence, but the association is strong only cross-sectionally, running the risk of a temporal fallacy. On the other hand, findings also indicate a significant influence of cultural factors (urbanization and TV ownership), both cross-sectionally and historically. Cross-sectionally, marriage is less prevalent in urban than in rural contexts but more prevalent with TV ownership and in highly fractionalized contexts and with TV ownership. The reverse is observed for urbanization and TV ownership from the historical evidence.

Thus, collectively, our results do not unequivocally resolve the economic-versus-cultural debate on the roots of marital transitions. For instance, the evidence from cross-sections of the populations and perhaps the life-course patterns of marital

changes reflect an economic explanation in so far as they mostly affect entry. Yet, the lion share of evidence favors a *multi-phasic* cultural change in how marital transitions unfold in Africa: (1) Changes occur first at the front end and emerge gradually at the tail end and (2) The early drivers, urbanization processes, are gradually given way to other influences, mostly growing TV exposure and women's labor force involvement. Such *multi-phasic* cultural evidence signals process-dependency pathways of marital transition.

Despite our ability to conclusively resolve the economic-cultural debate, our analytical approach reveals several insights. Triangulation of descriptive evidence with disaggregation of complex processes as well as with historical evidence has enabled us to filter through the complex mesh underlying marital changes and to clarify the currency and some of the pathways of marital transitions. Results reveal that there is value in disaggregation. For instance, had one limited analyses to either the descriptive or life-course examinations and not probed further into social and geographic patterns of marital changes or their disaggregated processes, one would have unduly accepted the economic explanation. Similarly, had one limited analyses to social patterns, i.e., the delaying effect of education on age at marriage or on change in marital prevalence without disaggregation, one would have concluded about marital transitions of having only a modest desexualizing effect across social groups. Indeed, the differentiated results from these latter dual ways of monitoring social patterns of transitions- aggregate analysis of median age at marriage versus multivariate analysis of change in marital prevalence- highlight an important distinction between macro- and micro-level investigations. These differentiated results, like the ethnic fractionalized countries, caution against the risk of committing ecological fallacy (Robinson) where one would infer from the macro evidence to individual behavior or vice-versa.

There is also additional value in combining disaggregation with historical analysis. One added value is in refining understanding of the drivers of the changing prevalence of marriage in terms of their currency and pathways in the region. Specifically, it has allowed us isolate long-term from recent influences and determine the relative effects of cultural as opposed to economic forces. Beyond the existence of long-term from recent influences, another added value of triangulating disaggregated and historical evidence is that it draws attention to the stage-dependency of our cultural drivers as opposed to an even change across the life course. Factors important in the early phase of the transition (e.g. urbanization) become superseded by others (e.g. global culture/TV ownership and young women's greater work attachment) in the later stages of the transition.

We cannot, however, underscore the mutually reinforcing nature of the above influences, and their policy and research implications. In terms of policy, our data highlights the potentially disequalizing effect of marital transitions on social and economic outcomes including fertility, women's status, and children's wellbeing through the growing influence of exit from marriage and its consequential effect on single-headed households. To avert further intensification of inequality and other negative outcomes, policy emphasis should shift from unilateral to multi-faceted programs and focus on multiple determinants of both front-end and tail-end processes.

Research-wise, this study underscores the value of triangulating evidence and urges the continued use of multiple methods and disaggregation of marriage into its sub-processes in sifting out the various drivers and future course of the transition. Further, the study recognizes the multiple dimensions of socioeconomic status and multiple indicators of marital change. As a step in this direction, future analysis will explore other indicators including the separate effect of employment as well as the dual influence of education and employment on age at marriage and change in marital prevalence to further clarify the future course of transitions. Clearly, these mutually reinforcing and interrelated influences are apt to differ within countries in ways that cannot be fully captured by our macro-level and multi-country comparison. Further, our interpretation is susceptible to ecological fallacy unless our macro-level analyses are corroborated by micro-level evidence from detail historical investigations within individual countries. This is our research endeavor in the near future.

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