Student, spouse, parent? A worldwide test of the role incompatibility hypothesis among adolescents and young adults[1]

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1. Background

The determinants of societal changes in family organization are still cause for discussion among scholars (Smith 1993, Thornton 2005). Despite different views on what drives family change, the effect of education is widely agreed upon. Education conveys both structural and ideational influences on family change (Jayakody et al. 2008). There is a wealth of evidence on the correlation between education and most demographic outcomes (see Buchmann and Hannum 2001 and Hannum and Buchmann 2004 for a review of the literature), although the specific mechanisms through which education exerts its influence are not always understood or specified.

There is general agreement that the primary transitions to adulthood occur after school is completed. Most men and women enter into their first unions (either marriage or cohabitation) and have their first child outside of school. Whether school is left to have a child, get engaged or to marry, or these transitions occur independently once ones schooling is completed, there appears to be what could be called an incompatibility of roles. This prevents most people from being both in school and having children and/or living in union at the same time. Role incompatibility owes to three interrelated factors: 1) a lack of economic and personal independence while in school; 2) exclusive time use. Time spent in school and on school activities is usually exclusive of parenting and/or that demanded by the shared economy of spouses; 3) Parental control. The returns to education can be very high in many countries, and so parents may push their children to continue studying and delay the commitments of family formation in order to improve their children's chances, increase their own status or hedge the risks of old age.

The broad empirical evidence supports an effect of education on marriage and childbearing timing: The increase in educational attainment is widely viewed as a primary cause for the delay of marriage (Mensch et al. 2005). However the available data ought to be able to differentiate between at least a few of the mechanisms to isolate which aspects of education are salient. Since education takes place in the vast majority of cases before entrance into a union, if time-allocation is the operative

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mechanism behind the education effect, increases in years of schooling should be accompanied by a postponement of marriage (and comparable relationships) and (subsequent) childbearing. For purely mechanistic reasons, marriage age and age at first birth would be expected to be higher as the length of education increases, and this observation should hold for men and women. However, the effect of school enrollment on marriage may also be mediated by the prior presence of an "early marriage culture" in a particular society. For instance, in societies with very intense early marriage patterns time-conflict effects should be most noticeable. This means that in countries where marrying before the age of 18 is common, differences between attending and not attending should be larger. Despite this common wisdom and awareness of the several mechanisms by which education may affect the timing of transitions to adult roles, no research has yet tested the role incompatibility hypothesis worldwide.

Of course, there are also other mechanisms that may be operative and even re-enforce that of role-incompatibility or time-allocation that we will discuss in the full paper. For instance, the existence of gender asymmetries in partner choice leads to different marriage timing between men and women. This is frequently related to the general tendency of women to marry men of higher status and vice versa (hypergamy). As a result, highly educated women have more difficulties in finding a suitable partner, which produces further delay or even a retreat from marriage and childbearing.

2. Objectives

In this paper, we combine census data from IPUMS international and Demographic Health Surveys (DHS) from more than 100 countries to examine the relationship between school enrollment and marital and parent statuses.

Our approach is based on current status information for marital or cohabiting unions, parenthood and education (both harmonized educational attainment and current enrollment status) at the time the census or demographic health survey was conducted. We focus on ages 12 to 24 (DHS 15-24), where the role incompatibility hypothesis is most plausible. The lower age limit is placed near the end of primary education in many of the countries, and where many girls in (very) early marriage cultures start to marry and may even have children. The upper limit corresponds to the average age where tertiary education ends, not including postgraduate studies. Ideally, biographical data would be more appropriate as it allows for a longitudinal approach to assess the likelihood of experiencing partner and parent transitions as a function of school attendance or to even directly ascertain (i.e. if asked) the reasons for leaving school, but censuses generally do not collect retrospective data. Although DHS samples do contain some retrospective information regarding transitions, at this stage of our research we are interested in obtaining results for as many countries in the world as possible.

The objective of this paper is twofold: First, we examine the consistency of the role incompatibility hypothesis between countries among male and female adolescents and young adults. Second, we examine how the degree of exclusivity of education and marriage and/or parenting roles varies between countries depending on aggregate levels of union formation and childbearing at relatively young ages. In addition, we will examine how much of the cross-national variability in union formation at these ages is due to country differences in school enrollment or attendance rates. This will allow us to infer whether the role incompatibility hypothesis is at work worldwide.

At the micro level, we test the following questions:

Are those enrolled in or attending school less likely to be in union and/or have a child than those having completed school? How does the pattern vary by sex and age? To what extent does for those having completed schooling their level of educational attainment predict variation? Is there a critical threshold in educational attainment in which role incompatibility is no longer supported?

At the macro level, we test:

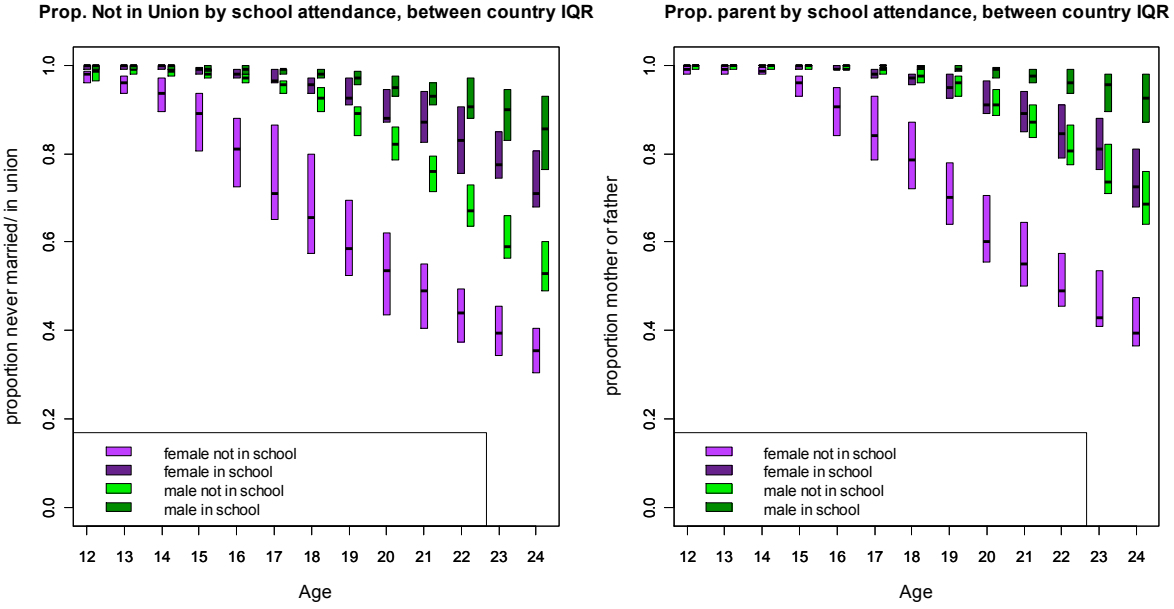
Are there significant differences between countries in patterns of inferred role incompatibility? For instance, do countries with early marriage and childbearing display role exclusivity more pronounced than other countries?

3. Data

We will combine the latest available samples from IPUMS international (54 countries) and Demographic Health Survey (DHS) (75 countries). In order for a sample to be included, it must contain variables for: school attendance or enrollment, completed schooling by level of attainment, age in single years, sex, union status and parent status. The latter two statuses are derived from existing census (or IPUMS constructed) and DHS variables. Union status refers to being or not in a marital or consensual union at the moment that the census or DHS was taken. The parental status is derived from the IPUMS variable "own children in the household" and from the DHS variable "birth order number". The paper will discuss in more detail the construction, comparability and response rates of the education, union and parental status variables as well as the implications and limitations of the use of cross-sectional data.

4. Preliminary descriptive results

The figures below summarize the between country inter-quartile range (IQR) in proportions not in union (left) and the proportion mother or father (right) by school attendance for males and females for a sample of 20 low- to middle-income countries from three continents for which the IPUMS census data were used. On average, and as expected, females undergo partner formation transitions prior to males. For both males and females those in school are on average more single and childless than those not in school. This observation holds for all ages as well. We also notice that between country variation for both singlehood and childlessness is much greater for those outside of school than for those in school, at least until around age 21. This is as expected, since those having finished school are still heterogeneous with respect to educational attainment and many other characteristics whose distributions may also vary from country to country. If the role incompatibility hypothesis holds, this appears much more plausible at ages prior to 21 for women, 23 for men, for both transitions. This suggests that as age increase, the role incompatibility weakens and more so for women than for men. Finally, the proportions of young adults in union and with children (compare left and right figures) among those who attend school are quite similar. This indicates that union formation is closely tied to childbearing, particularly in the case of women. For the final paper that we will increase the number of samples approximately 6-fold by including DHS and new census data, so as to cover most of the globe. In addition we will explore country-specific results as well as differences in union formation and parenthood by educational attainment.



Source: Integrated Public Use Microdata Series, International: Version 6.0 [Machine-readable database]. Minneapolis: University of Minnesota. Available online at http://international.ipums.org, accessed 27/2/2011.

Countries and samples included in the figures: Bolivia (2001), Brazil (2000), Colombia (2005), Ecuador (2001), India (2004), Kenya (1999), Malaysia (2000), Mexico (2000), Mongolia (2000), Panama (2000), Peru (2007), Philippines (2000), Rwanda (2002), Senegal (2002), South Africa (2007), Tanzania (2002), Thailand (2000), Uganda (2002), Venezuela (2001), Vietnam (1999).

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