

## Explaining pre-transitional sub-Saharan fertility using a multidimensional ethnological approach

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This article joins several others in discussing how integration of anthropological features—ethnicity, culture and social organisation—into demographic analysis can be improved. We draw on Frederic Pryor’s innovative and important study in anthropological economics to propose an approach that can evaluate pre-transitional fertility in sub-Saharan traditional societies more accurately. Using a multidimensional ethnological approach, Pryor (2003; 2005b; 2005a) applies a non-linear statistical method—discussed in Maxwell and Buddemeier (2002) as well as Maxwell, Pryor and Smith (2002)—to derive multidimensional ‘*traditional economic systems*’ from several anthropological features that underlie economic outcomes. If applied to ethnographic data describing features underlying fertility in pre-transitional societies, this approach has the potential of simultaneously evaluating and optimising the several features that underlie reproduction in pre-transitional societies. Rather than ‘ethnic’ groups, the resulting units-of-analysis are multidimensional ‘*traditional reproductive systems or regimes*’, that is, groups of traditional societies with similar multidimensional features that govern reproduction in traditional societies. This approach re-expresses ethnicity or culture based on several features underlying a demographic phenomenon in pre-transitional societies and then highlights the most influential ones.

The key ingredient of this procedure involves identification of several features that underlie the phenomena under study—in our case, features underlying fertility in sub-Saharan traditional societies. However, analysts should carefully select and include in the model only features that are important to, or influence, fertility in target societies. For purposes of identifying all-possible anthropological features underlying fertility in sub-Saharan traditional societies, the paper reviews Lesthaeghe’s (1989b) work, mostly but not exclusively. To understand how these features influence fertility in these societies, the article uses the fertility determinants model to discuss the possible fertility outcomes of various states of different traditional fertility governing features.

More importantly, the article discusses how this approach mitigates some drawbacks that affect integration of anthropological features into demographic analysis. Demographic conclusions arise from quantitative analysis of data that are usually generalisable to the rest of the population (Hill 1997). However, as Greenhalgh (1995) and Fricke (1997) point out, demographic analysis often fails to establish accurately ‘qualitative’ features underlying human behaviour. By contrast, anthropological analysis is based on qualitative and participant observation methods that are able to identify several features—including unexpected causal connections—underlying human behaviour in different

societies (Hill 1997; Heady 2007b). Regardless, as Georgiadis (2007) argues, the social and theoretical background of the anthropologist and that of their data collectors may influence their conclusions. Besides anthropologists often draw conclusions from non-quantitative and non-statistical methods that are not generalisable to the rest of the population. Due to these methodological differences some authors—for example, Kertzner (1995) and Fricke (1997)—have doubted the compatibility of these two fields of study. To the contrary, some demographers and some anthropologists have agreed that integration of anthropology into demography improves explanations of demographic behaviour (Greenhalgh 1995; Townsend 1997; Johnson-Hanks 2007). They argue that irrespective of differences, these two approaches have the potential of complementing each other to explain demographic behaviour. As Johnson-Hanks (2007) puts it, we should let demography show the outcomes of people's actions and cultural anthropology explain reasons for people's actions. Especially that "...there is less need to count and a much greater need to understand how and why demographic events happen, rather than how many and when..." (Coast, Hampshire and Randall 2007: 503). Despite this consensus, methodological issues surrounding the integration of these two fields of study remain unresolved (Hammel 1990; Hayes 1994; Roth 2004). These include handling of shifting or multiple identities and data problems such as wrong classification (coding) of some features and perhaps all attributes on some traditional societies. Structure versus agency is another important complexity that we should add to this list (Kreager 1997).

The discussions show that social and community features are important arrangements for controlling courtship and sexual relations in traditional societies. However, traditional economic and political arrangements play a big role (Heady 2007a). For example, more economically and politically organised pre-transitional societies are able to control courtship and sexual relations effectively thus resulting in expected pre-transitional fertility (Goody 1976). Regardless, most past studies analysing pre-transitional fertility usually leave out traditional economic and political arrangements. Given the extent to which population theorists have stressed multidimensionality as the cause of pre-transitional demographic outcomes, it is a serious shortfall not to evaluate traditional economic and political arrangements. Obviously, past studies have highlighted social and community arrangements as well as governance of courtship and sexual relations because they are the most theoretically developed (Lesthaeghe 1989b). These features are the least tractable and are the most grounded collective manipulable intentions. However, compared with traditional economic and political arrangements, their evaluations are not in any sense methodologically superior because they do not always yield clear predictions.