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# Addressing religious practices in Sub-Saharan Africa: Insights from a longitudinal study in rural Mali

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## Abstract

**Background:** In censuses and demographic surveys, religion is recorded as a variable of state, assuming that individuals' religious affiliation is unique and definitive. However, in sub-Saharan Africa, pluralism are commonplace. In this paper, we discussed the relevance and feasibility of a statistical approach to religious practices, taking into consideration their complexity and variability over an individual's lifetime.

**Data Source and methodes:** We used longitudinal data collected since 25 years in the south-east of Mali, among a population where traditional and Christian religions coexist. We compared the results of a classic cross-sectional approach with those obtained via a longitudinal approach that takes into consideration individuals' religious trajectories.

**Résultats:** Plurality and variability in religious practices are confirmed. Most individuals, at some point in their lives, become affiliated with different religions. Mobility and reversibility in religious affiliation are common.

**Conclusion:** The relevance of cross-sectional data on religious affiliation for demographic analysis is therefore questionable.

**Keywords :** religion, religious pluralism, religious affiliation, Africa, Mali

## Résumé

**Contexte:** Dans les recensements et les enquêtes démographiques, la religion est enregistrée comme une variable d'état, en supposant que l'appartenance religieuse des individus est unique et définitive. Cependant, en Afrique subsaharienne, le pluralisme religieux est fréquent. Dans cet article, nous avons examiné la pertinence et la faisabilité d'une approche statistique des pratiques religieuses, en tenant compte de leur complexité et de leur variabilité au cours de la vie d'un individu.

**Données et méthodes:** Nous avons utilisé des données longitudinales collectées depuis 25 ans dans le sud-est du Mali, au sein d'une population où coexistent les religions traditionnelles et chrétiennes. Nous avons comparé les résultats d'une approche transversale classique avec ceux obtenus par une approche longitudinale qui prend en compte les trajectoires religieuses des individus.

**Résultats:** La pluralité et la variabilité des pratiques religieuses sont confirmées. La plupart des individus, à un moment donné de leur vie, s'affilient à différentes religions. La mobilité et la réversibilité de l'affiliation religieuse sont courantes.

**Conclusion:** La pertinence des données transversales sur l'affiliation religieuse pour l'analyse démographique est donc discutable.

**Mots clés :** Afrique, Mali, religion, pluralisme religieux, affiliation religieuse

## Introduction

Religion typically features among the explanatory variables for demographic behaviour. Depending on their level of community domination and the values for which they stand, particularly on questions of family, gender and individual autonomy, it is indeed to be expected that religions orient individuals' behaviour in different ways (Caldwell and

Caldwell 1987, Lesthaeghe 1989, McQuillan 2004). In censuses and demographic surveys, religion is generally recorded as an individual characteristic and as a state variable. Implicitly, therefore, religious affiliation is considered to be unique, definitive and unambiguous. While this hypothesis may be acceptable with regard to certain populations, such as in the West, this is not the case for many others, where religious pluralism and diversity are commonplace. In

Sub-Saharan Africa the spread of universalist religions (notably Christianity and Islam) among populations that initially looked to traditional religions has resulted in innovative practices, including religious mobility and hybrid forms of religiosity (Chrétien 1993, Mary 2010). For anthropologists and sociologists, the dynamic nature of these practices is an essential dimension of the religious context and experience in Africa. It is, however, something that is not taken into account by quantitative surveys, and statistics on the subject are generally lacking. This is regrettable, as relevant data concerning religious affiliation is vital for any analysis of its influence on individual behaviours. Recording only the religion of the respondent at the time of the survey is rather simplistic and generally inadequate – too simplistic because the declarations made by respondents will in all likelihood reflect only part of the individual's religious background, most probably the normative, official version; and inadequate because the influence of religion on demographic indicators (child mortality, age at marriage, etc.) cannot be rigorously evaluated if the religion declared by the respondent at the time of the survey is different from that at the time of the event in question.

In this article, we used a case study to discuss the relevance and feasibility of a statistical approach to religious practices, taking into consideration their complexity and variability throughout an individual's lifetime. To what extent can individuals' religious history be recorded by a survey questionnaire? Is the question of religious affiliation easy to broach or, on the contrary, is it affected by reporting issues? What distortions occur if only the religion declared at the time of the survey is considered?

In order to examine these questions, we use longitudinal data collected over a period of 25 years from the south-east of Mali (Ined's project Slam "Suivi longitudinal au Mali") among a population where traditional, Catholic and Protestant religions coexist. The collection of personal religious histories as part of this survey means that a unique corpus of data is available to us, making it possible to compare the results of a classic transversal approach, based on the religion declared at the time of the survey, with those obtained via a longitudinal approach that takes into consideration individuals' complete religious trajectories.

The article comprises three parts. First, contextual data on religious pluralism in Sub-Saharan Africa and among the population studied are presented. The second part focuses on the recording of data relating to religion in

demographic studies and presents the data collection method adopted in Mali. The third part, devoted to the analysis of religious pluralism and mobility, examines the feasibility and advantages of a life-event approach in comparison to the classic recording of religion at the time of the survey. Finally, in the conclusion, we review the key findings of this empirical research and the more general questions it raises.

### **Religious pluralism. The historical and anthropological context**

In terms of the major religions only, Africa today appears to be a continent where universalist religions dominate: Islam in the northern half and Christianity in the southern half (Map 1). However, this masks a more complex reality, characterized by the plurality of religions present and the persistence of a solid underlying base of traditional religions. (Barbier and Dorier-Apprill 1996, Fancello 2010, Pew Forum on Religion and Public Life 2010).

### **Traditional religions and universalist religions in Sub-Saharan Africa**

#### **The bedrock formed by traditional religions**

Universalist religions spread in Sub-Saharan Africa in a context marked by a great wealth and diversity of religious practices. Reflecting their culture, identity and social organization, the various populations have, each in their own way, developed a set of representations and beliefs that deal with the order of the world, together with cults and ritual practices intended to seek favour with occult powers and maintain balance in the world. The term "traditional religions" is used to designate these organized corpora of beliefs and practices. Terms such as "animism" or "fetishism", while still in use today (including in statistical reports), are no longer particularly relevant: their etymology and past usage have connotations with a naïve and irrational conception of the world and are associated with evolutionist theories (Awolalu 1976, Bonte and Izard 2002, Panoff and Perrin 1973).

Traditional religions vary significantly from one ethnic group to another, and also exhibit variability over time. However, they do converge on some points, notably in terms of concepts and practices, which distinguish them from universalist religions (Chitando 2008, Pew Forum on Religion and Public Life 2010):

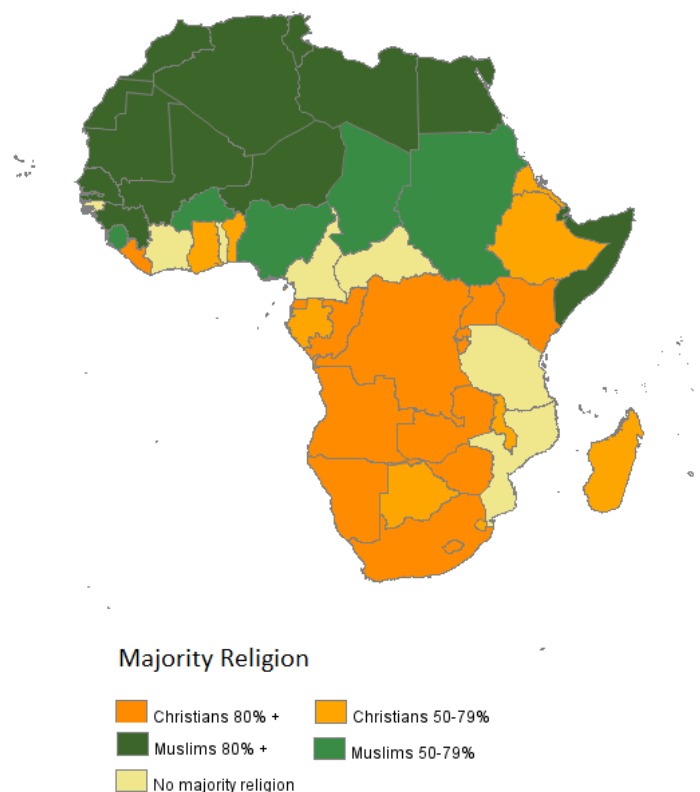
- **Concepts and relationships to the divine.** The existence of a supreme creator god, one of the fundamental elements of universalist religions, is also recognized by traditional religions. However, this god is surrounded by

other supernatural figures, which act as intermediaries for addressing this god or which possess their own powers (Awolalu 1976, Mbiti 1970, Pew Forum on Religion and Public Life 2010). Furthermore, these religions make no reference to any prophet or mythical or heroic figure, along the lines of Jesus, Buddha or Muhammad, who taught followers. The

possibility of humans having direct, personal access to their god exists in monotheistic religions (via prayer, meditation, etc.), but not usually in traditional religions. Access to superior powers requires special knowledge and skills, in terms of rituals and interpretation, which makes this domain the preserve of a select few.

### Map 1. Majority religions in Africa

(Source: Database from the World Religion Project (WRP), Maoz and Henderson 2013)



- **Specificity and complexity of religious systems.** Unlike the religions of the Book, traditional religions are based on oral culture and transmission of knowledge. They fit in with the culture and sociopolitical organization of the populations that developed them. By essence, they are therefore locally rooted (different communities address different divine powers); proselytism and expansion are not aims pursued by traditional religions. That said, they do not define themselves in opposition to, or as being in competition with, the religions of neighbouring populations, and indeed borrowings of particular practices or cults are frequent. Religious

frameworks typically correspond to a combination of cults relating to several different levels: ethnic group, local communities, lineage (ancestor cults), and domestic or even individual cults (special altars). In general, individuals – except those who, by dint of their age and family or social status, have particular responsibilities in the conduct of worship – have only a partial perception of the religious system to which they are affiliated. With the exception of certain ritual junctures (e.g. initiations, special ceremonies),

traditional religions make few demands in terms of personal involvement. Religious practices form part of a community-based approach: they

are conducted by a few individuals for the benefit of the group. (Langewiesche 2003, Mary 2010).

- **Flexibility and change.** Contrary to received wisdom, “traditional religions” are far from immutable in terms of codes and practices. The combination of various cults, the oral tradition, the absence of proselytism and the limited involvement of individuals in religious activities are all factors that point more towards a curiosity and openness with regard to other practices than to any sort of identity-related defensiveness (Mary 2010). In fact, as Chrétien (1993) has shown, these religions have continuously evolved, before, during and after the successive phases of colonization and expansion of Islam and Christianity. This plasticity is key to understanding the rise of universalist religions in Africa, the persistence of traditional religious frameworks, and the hybrid practices that have developed (Mary 2010, Pew Forum on Religion and Public Life 2010).

#### **The spread of Islam and Christianity**

Islam and Christianity have long been present in sub-Saharan Africa among certain populations or social groups, but it was essentially in recent centuries that they began to be adopted among the general population.

**Islam** remained an elite religion until the 16th century. Introduced in Africa as early as the 11th century with the rise of the great medieval empires of Western Africa and as a result of Arab and Berber influences (Cuoq 1984), Islam at this time provided a framework for organizing society in accordance with rules prescribed by scholars. Practices remained flexible, with sovereigns not hesitating to mix texts and laws based on the Quran with religious practices closer to traditional cults. The large-scale spread of Islam primarily took place in the 17th, 18th and 19th centuries, benefiting first from the development of new commercial routes and later from cultural isolationism in the face of colonization (Dubresson et al. 2003). The new religion accommodated traditional beliefs with ease and demanded no exclusivity from its new converts; it is often described as “Black Islam” (Monteil, 1964) or “folk Islam” (Parshall 2006) in order to distinguish it from the strict application of the Quran’s teachings. The development in certain countries of a stricter form of Islam is a recent phenomenon, dating back no earlier than the second half of the 20th century (Dorier-Apprill 2006).

The rise of **Christianity** in Sub-Saharan Africa mostly took place from the 19th century onwards, alongside Western colonization (Dubresson et al. 2003). With the founding of the

Society of the Missionaries of Africa (or “White Fathers”) in 1869, the Catholic Church embarked upon a programme of large-scale evangelization. This was based on a widespread and decentralized presence on the ground, local integration, including learning local languages, and an approach that combines pastoral care with charity work (de Benoist 1987, Diarra 2007a, 2009). The creation of missions and parishes, the training of catechists, and the development of schools and health centres forged links with populations and helped to establish the Catholic Church across a large part of Africa, stretching from the Gulf of Guinea to the south of the continent (see Map 1). Protestants arrived later, during the 20th century, but the proselytism and autonomy of their missions enabled them to gain influence. Alongside churches of Western origin, local religious options became more diverse and more fragmented. Independent churches combining elements of both traditional and Christian cultures came into being in the early 20th century (De Luze 1991); following decolonization, these churches began to grow, undergoing particularly sustained development in the 1990s (Dozon 1995).

According to the statistics available, Islam and Christianity have widely replaced traditional religions. In every country, the majority religion now belongs to one of these two groups (Map 1). Traditional religions have only a marginal statistical presence – they are reported by less than 10% of the population in Africa today, versus about 60% at the start of the 20th century, at which time they concerned almost all (94%) of the population of Central Africa and three quarters of the West African population (Johnson and Grim 2013). This decline in traditional religions is not specific to Africa and can also be found on other continents.

The rise of universalist religions is often seen as a part of the dynamics of globalization. According Horton and colleagues (1971, 1975), the local specificity of traditional religions reaches its limits with the development of trade and encounters with other cultural systems. These limits are related to both the belief system (which is unable to encompass and explain new information) and the dynamics of trade and integration (identity-related postures hinder the establishment of closer relations and the construction of a common culture). Universalist religions respond to this with a globalizing religious framework, making it possible to consider the world as a coherent whole, and providing the ethical and cultural foundations of a community of interest. The expansion of these

religions has not led to a break with the old beliefs, but instead to an adaptation necessitated by the opening-up of the traditional society to the outside world. Historical and geopolitical conditions are another determining factor of the growth of universalist religions (Mbembe 1988). Catholic missionaries benefited from the context of colonization, not just in terms of increased safety, but also by establishing themselves as sociopolitical players (de Benoist 1987).

In various populations, conversion was a strategy used to get closer to new leaders and establish a position on the side of “modernity”, while in others it was a way of making “legitimate” allies (the White Fathers) in the face of the demands and abuses of power of the colonial authorities (de Benoist 1987, Diarra 2007a, 2009). In some cases, conversion was used as a way of distancing traditional sociopolitical structures while also benefiting from outside support; accordingly, “social inferiors” (descendants of slaves, caste people, etc.) have often been among the first converts (de Benoist 1987, Diarra 2007a, 2009, Mbembe 1988). Finally, at individual or collective level, conversion can be a means of accessing relational and material resources, such as health care and education (Hawkins 1997, Ifeka-Moller 1974).

### **Religious pluralism**

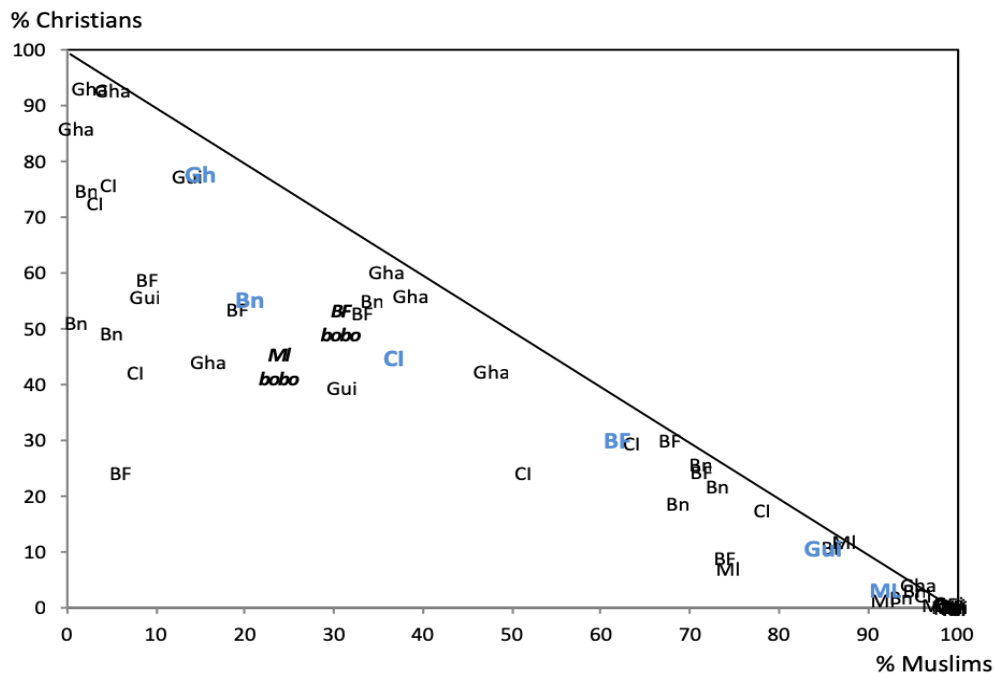
Conversions, whether to Islam or to Christianity, do not correspond to simple, one-dimensional and definitive phenomena (Degorce 2011, Langewiesche 2003). While Africa is today broadly shared between both religions, this is the case only in terms of official and majority religions. The reality is more complex, marked by a mix of religious references and backgrounds in both the community environment and in individual practices.

In most African countries, there is a situation of religious pluralism (Barbier and Dorier-Apprill 1996). Ethnic criteria are prime heterogeneity factors. This can be seen in Figure 1, which shows results from DHSs (Demographic and Health Surveys) for five countries in West Africa with highly contrasting national indicators: Guinea and Mali have a clear majority of Muslims, Ghana has a majority of Christians, and Benin and Côte d'Ivoire have intermediate profiles. In every country, there is variation

between ethnic groups, sometimes very marked – as in Ghana, whose eight ethnic groups cover a wide range of combinations – and sometimes less dispersed, as in Mali, where only two of the nine ethnic groups are less than 75% Muslim. However, beyond the ethnic patchwork, different religions also coexist in most ethnic groups. On the one hand, there are barely a third of ethnic groups where a single religion has a quasi-monopoly (i.e. at least 90% of the population, at either extreme of the diagonal): 14 cases for Islam and 2 cases for Christian religions out of the 50 ethnic groups identified by DHSs in the five countries in question. On the other hand, most of the points do not line up on the diagonal, showing that a binary “Muslim/Christian” categorization is not sufficient to cover all the religions present, and that traditional religions also count, though at a lower level. Individuals' environments are not, therefore, marked by religious segmentation: most of them live in contexts where several religious cultures coexist and interact.

Moreover, membership of universalistic religions does not mean an abandonment of traditional beliefs. Very often, they are assimilated via adaptations to existing frameworks of thought (Fisher 1973). Syncretic movements that combine elements of traditional religions and texts from the Bible or the Quran (“folk Islam”) (Johnson and Grim 2013) are an example of this. More generally, old and new religions are not necessarily thought of in terms of exclusivity and, depending on the situation, an individual may refer to one and/or the other. With this in mind, it can be observed that belief in traditional religious practices (sacrifices, ancestor cults, etc.) is much more widespread than the statistics on declared religion suggest (Table 1). Even in populations where the vast majority of individuals claim membership of an Abrahamic religion, adherence to old beliefs sometimes concerns a large part of the population. In Mali and Senegal, where 90% of the population identify as Muslims, as well as in Cameroon and South Africa, both countries that are nominally over 80% Christian, about 50% of individuals admit that they believe in traditional practices (Table 1).

**Figure 1. Ethnic groups by the percentage of Christians and the percentage of Muslims among women (aged 15–49) in 5 West African countries, according to the most recent DHS.**



Each ethnic group is represented by a point bearing the country's label: Benin-2006 (Bn), Burkina Faso-2010 (BF), Côte d'Ivoire-2005 (CI), Ghana-2008 (Gha), Guinea-2005 (Gui) and Mali-2006 (MI). Blue labels indicate national average values. Black labels in bold type indicate values for the Bobo groups in Burkina Faso and Mali, of which the population studied in this article are members.

**Table 1. Religious affiliation and traditional beliefs in 19 Sub-Saharan countries.**

Country	Religious affiliation (% adult population)			Belief in the protective power of sacrifices to spirits and ancestors (% adult population)
	Christian	Muslim	Traditional	
Tanzania	60	36	2	62
Senegal	10	89	1	55
Mali	8	90	1	52
Cameroon	80	16	1	48
South Africa	87	2	4	46
Guinea Bissau	62	38	0	39
Chad	40	54	3	38
Botswana	87	2	1	28
Ghana	83	11	4	28
DR Congo	80	12	3	25
Liberia	69	19	12	24
Uganda	86	13	0	18
Mozambique	63	23	1	16
Djibouti	2	97	0	16
Kenya	88	11	0	11
Zambia	98	2	0	9
Nigeria	46	52	1	8
Ethiopia	69	30	0	8
Rwanda	93	5	0	3

Source: Nationally representative surveys among adults (18+), 2008-2009, N=1000 to 1500 per country. Pew Forum on Religion & Public Life (2010, p.20 and p.34)



Finally, religious plurality also exists in the individuals religious practices over their lifetime. Here too, anthropological studies reveal great malleability and flexibility in religious practices. Conversions are reversible and adaptable (Langewiesche 2003): depending on the circumstances and issues to be resolved, individuals may approach and affiliate with various religious structures (Dubresson et al. 2003). Eclecticism and pragmatism help guide individuals in a context characterized by a pluralization of the religious options on offer (Mary 2010). "Inherited membership" is being supplanted by "approaches involving experimentation, conversion and reconversion, foraging, religious mobility, and even multiple simultaneous memberships" (Lasseur and Mayraque 2011).

### **Religious frameworks among the Bwa in Mali**

The Malian study population follows the key aspects of religious pluralism mentioned above. It belongs to the Bwa ethnic group, present in Mali and Burkina Faso, which is usually recorded with other ethnic groups in the "Bobo" category in national statistics. DHS data (Figure 1) confirms the religious diversity observed in these populations in both countries, with 40% to 50% of respondents identifying as Christians, 20% to 30% as Muslims and 20% to 30% as belonging to traditional religion. The significant presence of Christians and the low proportion of Muslims are even more pronounced among the Bwa ethnic group, a situation much more similar to the configurations observed in Burkina Faso (and in the coastal countries) than in Mali, where Islam predominates. In the villages studied, Christian religions (31% Catholic and 16% Protestant in 2009) and traditional religion (52%) are of broadly equal weighting, while Islam is virtually absent (1%).

### ***Traditional religion: a complex corpus that structures and controls individuals***

Traditional religious practices are privileged means of structuring Bwa society. The identities of individuals and collective units (lineages, socio-professional groups), along with their place in the community, are expressed in religious practices.

Ethnic identity is tied to a specific cult, that of the Do, an intermediary between God and humans (Capron 1957, 1962, Diarra 2009, Rasilly 1965). The integration occurs in two stages, with two rituals. The first, in early childhood, is similar to a baptism: the child is entrusted to Do and receives a secret name; the child is then a member of the community and

may, upon his death, be ritually buried in the house and join the family ancestors. This ceremony is a passive integration, and the child is not necessarily present. It can be performed by an elder of the family without the knowledge of the child's parents and indeed, later on, without the person in question being aware of it. The second stage, typically between the ages of 12 and 15, is an initiation in which the person in question plays an active role and makes a commitment to respect the secrecy surrounding the cult. The individual is then recognized as an informed and responsible person, and may therefore attend public religious ceremonies, including annual masked celebrations. However, it is not until much later, when the rank of elder is reached in the lineage, that the individual will have an active role to play in the traditional cults. Once "baptized", the individual belongs to the community and is protected by the Do, without having to play an active role.

Together with the Do, the Bwa's religious system includes various other altars, at the level of the village (forge, large well, etc.), the lineage (ancestors, special altars), or even the individual ("fetishes"). Community-based cults reflect sociopolitical relations – for example, by differentiating the roles of socio-professional groups, reserving religious responsibilities for the most senior lineages of the village, or organizing ceremonial routes by seniority of lineages (Hertrich 1996). Within lineages, religious practices reaffirm authority structures based on gender and age; indeed, only elders have the knowledge and mastery of sacrificial techniques required to enter into contact with the unseen powers and trigger their involvement in the human world. They also have strong moral and coercive power over individuals: on the one hand, forbidden transgressions are sanctioned by a lack of rain, thus endangering the community; on the other, lineages often have special altars to condemn deviant behaviour (adultery, incest, etc., being punishable by death). For the common mortal, the religious system is a complex and opaque ensemble that inspires fear and submission to the rules laid down by the elders. (Capron 1957, Diarra 2007a)

### ***Resistance to Islam and diffusion of Christianity***

The limited influence of Islam, like the spread of Christianity among the Bwa people, is related to historical and cultural factors. As a "village society" (Capron 1973, 1988) renowned for its independent spirit, Bwa society has proved unreceptive to approaches made by a

centralizing power. Resistance to Islam is one expression of this among others, such as the insurrection of 1916 at the time of colonization, or the low level of school enrolment until the 1990s (Diarra 2007a, 2007b, 2009). In collective representations, the figure of the Muslim retains negative connotations, being associated simultaneously with the invaders of the 19th century, slave recruiters, collaborators of the colonial administration and, later, representatives of the Malian government, imposing their demands, notably for tax. Conversely, it is often the image of illiterate, millet-beer-drinking, dog-eating peasants that is evoked when the subject of the Bwa people is raised among city-dwellers. In the villages studied, membership of Islam is rare and usually serves as a means for social integration after migration into a Muslim environment.

The spread of Christianity is linked to the contrasting resistance to Islam and the colonial powers. With a presence in the region dating from 1922 for Catholics and 1936 for Protestants, the Christian missionary emerged as an alternative figure to that of the colonizer. Missionaries were the “other whites” – they were the ones who were present in the bush and witnessed the brutality and abuses of indigenous auxiliaries, and who did not hesitate to take up the villagers’ defence with the administrator. By becoming closer to these religious missions, the Bwa gained allies and protectors (de Benoist 1987, Diarra 2007a, 2007b, 2009). The missionaries’ message (honouring the poor and the persecuted) and behaviour (learning the local language and living in the village), together with the development of charitable work (medical care, food donations in times of crisis, literacy, etc.), also contributed to the establishment of Christian religions. Ultimately, Christianity was accepted because it was not perceived as a real threat to traditional religious institutions: first of all, because the first conversions were often “social inferiors” (former slaves, young people, etc.) and therefore of minor importance to traditional religion; second, because traditional cults were not challenged since they were in hands of the family elders; and finally, at the individual level, joining the Christian churches was not a denial of beliefs and practices. Although occasional conflicts have arisen here and there, Christian religions have, overall, settled into the region smoothly (de Benoist 1987, Diarra 2009).

In the villages studied, the presence of catechists on the ground dates from the 1940s in the case of the Catholic Church and the 1950s for Protestants.

## **Recording religion in censuses and demographic studies**

Long recognized by anthropologists as an essential dimension of religious practices in Africa, religious pluralism and mobility are, paradoxically, completely absent from statistical and demographic research.

### **The standard option: religion at the time of the survey**

Religion is often recorded in censuses and surveys, but exclusively as a variable of state. The recommendations of the United Nations (2009) for **censuses** contain little guidance regarding the recording of religion, leaving countries free to decide on the relevance of a question on religion and on what categories should be used. Consequently, a wide variety of situations exists, with some countries not collecting such information at all (e.g. Nigeria in 2006 and Zimbabwe in 2002) and others using very different categories. In Mali, religion was recorded for the first time in the most recent census (2009), using five categories (Muslims, Christians, Animists, No religion, Other). Other countries have up to eight or nine categories, but with highly variable distinctions. For example, Christian religions are covered by five categories in Rwanda (2002), while in Senegal (2002) it is Muslims that have five categories – but no category is provided for traditional religions or those with “no religion”. The “Hindu religion” has been identified in Kenya since 2009, as has Buddhism in Zambia (2010).

In **DHS surveys**, the recording of religion, along with ethnicity, is provided for in the individual questionnaire, but decisions concerning the relevance of including such a question and the categories to be used are left to the discretion of each country. Depending on the country, the categorization used may be fairly basic, with 4 to 6 options, or may include finer distinctions, with 8 to 10 options, as is often the case in countries on the West African coast, where evangelist churches are particularly well represented. The latest DHSs from Benin (2006 and 2011), for example, included a dual recording of religion, with separate household and individual questionnaires and 10 different categories.

Finally, Unicef’s **MICS** (Multiple-Indicator Cluster Survey) **questionnaires** record the religion of the head of the household only, once again leaving national teams to decide on the categories to be used.

Religion is therefore recorded once and for all for each individual, or even for each household

(in the case of MICS), suggesting a certain unambiguity and stability of religious practices.

### **Specific data collection experiences**

It is likely that some small-scale surveys have adopted original protocols for a more detailed and less unambiguous recording of religious practices. However, little mention of this is found in international demographics publications.

The experience of data collection in Malawi is something of an exception. Here, religion has been recorded by selecting different variables according to the prevalence of different practices. It combines a collection of multiple variables on religious practice intensity with data from a survey addressed to local religious leaders. Results of this research project are particularly focalized on religious influence on HIV/AIDS prevention (Adams and Trinitapoli 2009). Their results show that using a too narrowly defined measure of intensity of religious practice radically changes the conclusions about religious influence on HIV. They prove, for example, that even if the religion affiliation itself is not directly correlated with HIV, the intensity of practice and the discourse of local leaders are predominate factors of prevention of HIV. A similar result was found for the relationship between religious socialization and contraceptive behavior (Yeatman and Trinitapoli 2008) with this dataset.

The Pew forum on religion and public life funded a survey in 19 sub-Saharan countries in 2010. The questionnaire includes a question on the belief in spirits or ancestors that show that a large share of Africans believe in more than one religion (Pew Forum on Religion and Public Life 2010).

However, religious mobility is absent from these data collection procedures. We have found no examples of quantitative surveys in Africa that have considered this issue and which could serve as a point of comparison with the approach adopted in our project.

### **From religion at the time of the survey to religious trajectories.**

#### **The SLAM project's research strategy**

The SLAM (Suivi longitudinal au Mali – Longitudinal Survey in Mali) project was implemented in the late 1980s to track demographic and family changes in a rural Sudano-Sahelian area. It covers Bwa villages in the south-east of Mali, whose economy is centred on agricultural self-sufficiency and

family-based production. The demographic context is characterized by high fertility (8 children per woman) and high natural population growth (about 3% per year), partially offset by emigration (within the sub-region). Schooling, hitherto marginal, developed with the advent of democracy and decentralization in the 1990s, with around half of all children in the study area attending school at the end of the 2000s.

The observation system includes different surveys, initially carried out retrospectively during the first phase (1987–1989) and then updated every five years, the latest being in 2009–2010. The question of religion was addressed as part of a life event history survey, conducted exhaustively in two villages (1,750 inhabitants in 2009). Given the context of religious pluralism documented by anthropologists (Capron 1962, 1973, Diarra 2007a, 2009), we designed the survey with the objective first, to quantitatively evaluate religious mobility; second, to situate each life event in relation to the respondent's religion at the time; and lastly, to take into consideration "degrees" of membership of the religions present.

The selected option was to record the individual's religious trajectory, from birth up to the time of the survey, taking into account religious sequences of at least three months. In this population, religious mobility typically occurs between the traditional religion (the "default" religion) and Christian religions (both Catholic and Protestant). In accordance with the descriptions given by the respondents, religion is reported in terms of attendance at worship. In the local language, an individual is said to "follow" the Catholics ("the people of the (White) Fathers"), the Protestants, or "the tradition". In the absence of a more precise vocabulary, we shall talk about religious membership or affiliation, while keeping in mind that this term is not synonymous here with definitive conversion or exclusive membership.

Two questions were added regarding the intensity of religious change. One, concerning respondents' proximity to traditional religion, asked those born Christians if they had been initiated in "the tradition". The second recorded Christians' completion of an act of faith: "confirmation" for Protestants; for Catholics, their advancement through the different stages of commitment (baptism at birth, medal, rosary, communion, cross/confirmation). Box 1 reproduces the "Religion" module of the questionnaire.

**Box 1. “Religion” module of the life event history survey – SLAM project**  
(translated from French)

**RELIGIOUS TRAJECTORY** *For all respondents*

**Current religion:**

*“What religion do you currently follow: the tradition, the Catholics, the Protestant, or the Muslims?”:*

.....  
.....

**Christian commitment:**

If Protestant: *“Have you been baptised?”:*

.....

If Catholic: *“Have you made any commitments to the Catholic Church: medal, rosary, etc.?”:*

.....

(Order of commitments in the Catholic Church: baptism at birth, medal, rosary, communion, cross, promise of commitment/confirmation/adult baptism – see document in appendix.)

**Religion at birth:**

*“When you were born, what religion did your parents follow?”:*

.....

**Initiation** for those respondents who were born Christians:

*“Did you enter into the tradition?”:*

.....

**Trajectory:** *“I would like you to list each time you changed religion, including all the times that you followed the Catholics, the Protestants or the Muslims, even if it didn’t last long, and all the times that you returned to the traditional religion. You told me that you followed ..... at birth; the first time that you stopped following ....., who did you follow instead?”*

(Only periods of 3 months or more are counted as adoptions.)

(For each adoption of a Christian religion, indicate if it gave rise to a commitment)

Order	Religion	Year of adoption	Duration	Christian commitment
1		Birth		

A question about the frequency of participation in religious services, tested during the survey design stage, proved irrelevant in a context where participation in services is – initially, at least – the sole manifestation of religious membership. Accordingly, a new religious sequence can be identified whenever a respondent declares having “been to the Catholics or the Protestants” without any other validation criterion being necessary. Individuals

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who state that they are neither Christian nor Muslim are classified as belonging to the traditional religion. The “no religion” category was not considered, as any individuals who have been initiated benefit from the protection of the traditional cults, even if they do not play an active role in it.

This module on religion was implemented without any problems. The question that could potentially have been problematic concerned initiation, which is why it was phrased in as

general a way as possible, with no distinction made between the first and second stages of initiation, the latter being shrouded in secrecy. Respondents expressed no guilt or embarrassment when talking about changes of religion: going to the Catholics, leaving the Catholics, adopting their spouse's religion, etc. are considered perfectly normal actions that presented no reporting issues. The main difficulty encountered, in fact, was in establishing dates – a problem generally – which was addressed by approximation with other biographical events. Although it is likely that some religious sequences were omitted, the large number of changes recorded attests to the feasibility of the data collection: for 3,181 individuals (of all ages) surveyed during at least one of the phases of the survey, we recorded 4839 religious sequences.

To what extent does the approach to religious practices taken from the life event history module differ from the classic approach that considers only the religion at the time of the survey? Is the hypothesis of significant religious mobility, supported by anthropologists, confirmed by quantitative data? What are the benefits of taking this into account in the analysis of religious structures practices?

**Co-existing religions**

According cross-sectional data, the population is almost equally divided between Christians (48%) and followers of the traditional religion (52%) (Table 2). There are twice as many Catholics as Protestants (31% compared to 16%). The indicators are similar for both genders, with women identifying as Christians (Catholics in particular) a little more often than men (51% compared to 44%).

**Religion and religious trajectories. Contrasting perspectives and measures.**

**Table 2. Religion at the time of the survey (last round or cut-off) and religion at birth, by gender and age**

Age	Religion at time of survey (both genders combined)					% of Christians at time of survey			% of Christians at birth			No. of obs.
	Trad.	Cath.	Prot.	Musl.	All	Fem.	Male	All	Fem.	Mal	All	
0-4	54	30	16	0	100	51	41	46	51	41	46	445
5-9	53	29	17	1	100	48	44	46	45	45	45	442
10-14	49	33	18	0	100	56	45	51	48	44	46	410
15-19	48	34	18	1	100	57	44	52	39	40	39	496
20-24	41	41	17	0	100	63	54	59	41	51	46	365
25-29	47	33	19	1	100	57	48	52	29	43	37	219
30-34	51	33	16	1	100	51	45	48	41	43	42	135
35-39	52	29	19	0	100	42	54	48	33	46	39	89
40-49	58	27	14	1	100	40	42	41	23	27	25	178
50-59	63	24	12	1	100	41	28	35	17	22	19	147
60-74	63	27	10	1	100	35	38	37	8	9	9	163
75+	82	16	1	1	100	18	16	17	0	0	0	92
All	52	31	16	1	100	51	44	48	38	39	38	3,181
Female	49	34	17	0	100							
Male	56	29	15	1	100							

Coverage: Individuals interviewed as residents during one or other visit (1987-89 to 2009-10)

Source: Life event history survey, Slam project, Mali. INED

Religious diversity exists at all ages (Table 2). Christians account for approximately 50% of the population under age 40 (with a maximum of around 60% at 20-24). As age increases, affiliation with the traditional religion becomes more frequent, concerning 60% to 65% of respondents aged between 40 and 75, and over 80% of respondents aged 75 and over. Age profiles are similar, to varying degrees, for men

and women, and also for Catholics and Protestants. For most of the analyses to come, therefore, we shall generally combine data for men and women, and for Catholics and Protestants.

This age profile is consistent with the relatively recent establishment of Christian religions in the villages studied. Indeed, their influence is expected to be higher for the younger

respondents, who grew up in contact with Christian churches. By contrast, it is logical that the older generations, who were socialized in a context of traditional religion only, and whose religious options diversified much later, are more likely to claim membership of the traditional religion. The structure of the population by religion at birth is consistent with this interpretation (Table 2). The dramatic rise in the proportion of individuals born Christians – 0% for the older birth cohorts, 40% for those aged 35 to 39 – reflects the spread of Christianity in the area, while the stabilization of these figures among subsequent birth cohorts suggests that the boom has reached its limits. Is it therefore reasonable to consider that the current population structure by religion at the time of the survey corresponds to a sort of stabilization, with a division into three sub-populations (Catholics, with a third of the population; Protestants, with slightly less than a quarter; and followers of the traditional religion, with a little under half) that will be perpetuated primarily through acquisition at birth?

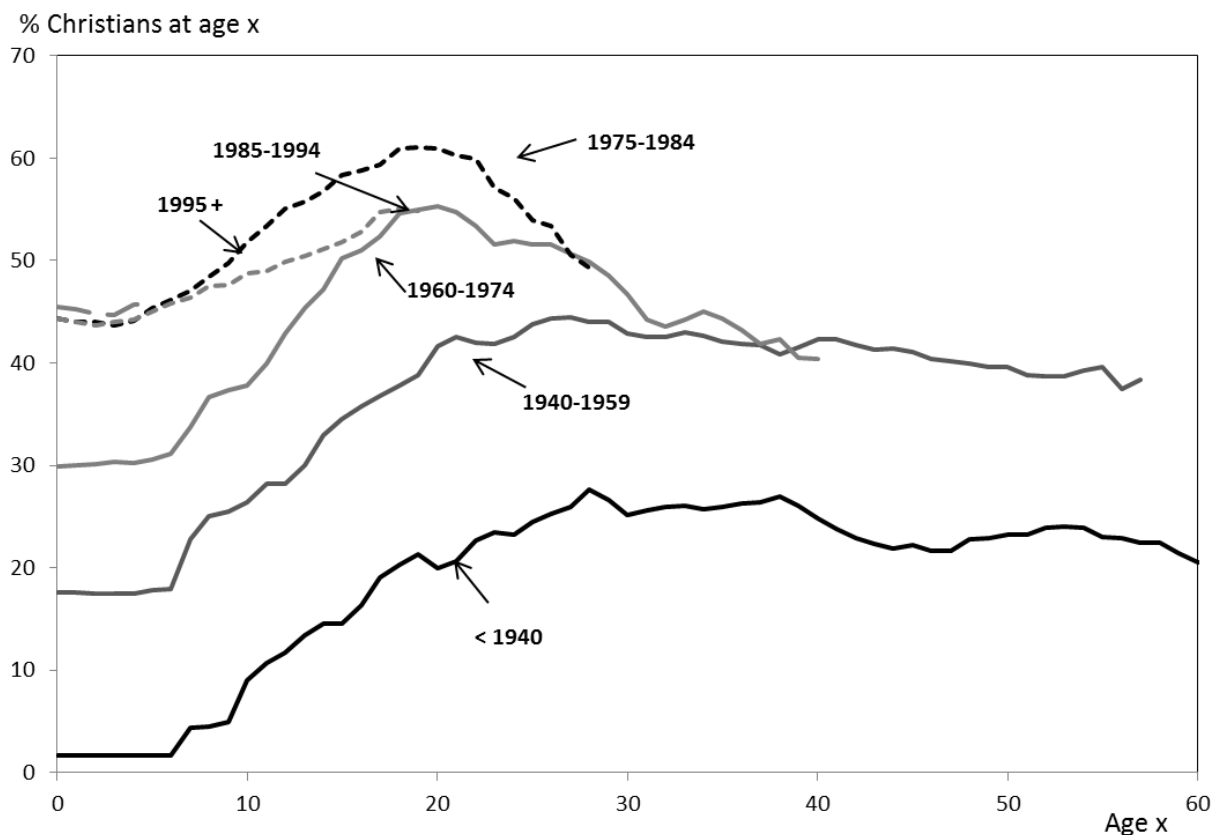
Comparing indicators of religion at birth and at the time of the survey (Table 2) allows to

qualify this interpretation: after age 10, age groups exhibit a difference of around 10 percentage points between the proportions of Christians at birth and Christians at the time of the survey, thus demonstrating the existence of religious mobility, even in birth cohorts born after the establishment of Christian religions in the area.

### A practice that varies according to age and birth cohort

Longitudinal data of individuals' religious affiliation over time (Figure 2) confirms the existence of a dynamic of religious practices that cannot be explained by a purely historical interpretation. It is true that the expansion of Christianity is clearly demonstrated by the shift of the curves from one birth cohort to another: the younger the birth cohort, the higher the proportion of Christians at birth. Individuals born to Christian parents – negligible among the oldest age groups – represent a fifth of the 1940–1959 cohort, 30% among the 1960–1974 cohort, and 45% for those born from 1975 onwards. However, these indicators do not stay at the same level as age increases.

**Figure 2. Proportion (%) of Christians by age and birth cohort**



A movement of *secondary membership* shows up very clearly from *late childhood to early adulthood* (Figure 2). Regardless of birth cohort, the proportion of Christians increases

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dramatically between ages 10 and 20 (and up to age 30 for pre-1940 cohorts). This is a mass phenomenon that includes all conversions of pre-1940 birth cohorts, doubles membership

levels in birth cohorts between 1940 and 1975, and further increases the already high level of Christian membership at birth of the youngest generations. The membership rate for Christianity reaches its peak at the end of this increase, in early adulthood. No other significant conversion movements are suggested by the aggregate indicators: people do become Christians later in adulthood (see below), but at best these additions offset the drop in membership without leading to any increase in overall membership rates. Trend reversals represent the final phenomenon signalled by the longitudinal indicators and prove that joining a religious community cannot be assimilated to permanent conversion. This is particularly clear among cohorts born after 1960, with a turning point at around age 20, followed by a steady decline which cancels out the gain in membership of the teenage years. This reversal is barely perceptible, if at all, among the oldest cohorts. It is possible that the phenomenon has been underestimated by our data in this age group, if, in accordance with habitual biases, our respondents failed to mention past events “that did not count”, namely religious sequences of short duration. Equally, though, it is not impossible that these older cohorts, who were pioneers in establishing closer relations with the Catholic and Protestant religions, also experimented with different – more selective and more sustainable – forms of religious membership than younger respondents in a context where attending Christian services has become commonplace.

At the individual level, we have seen that religious practices cannot be equated with unambiguous and definitive membership, whether acquired at birth or chosen later. At the aggregate level, it would also be wrong to analyse the prevalence of the religions present exclusively in terms of progressive dissemination or progressive differentiation. According to our data (Figure 2), the extent to which a religion is practised will be influenced not just by its degree of establishment at the time in question (duration of presence, dissemination, etc.), but also, and indeed even more so, by individual life cycles. Accordingly, the difference between the proportion of Christian individuals at birth and at age 20 in each cohort is larger than the difference, at the same age, between successive cohorts (Figure 2).

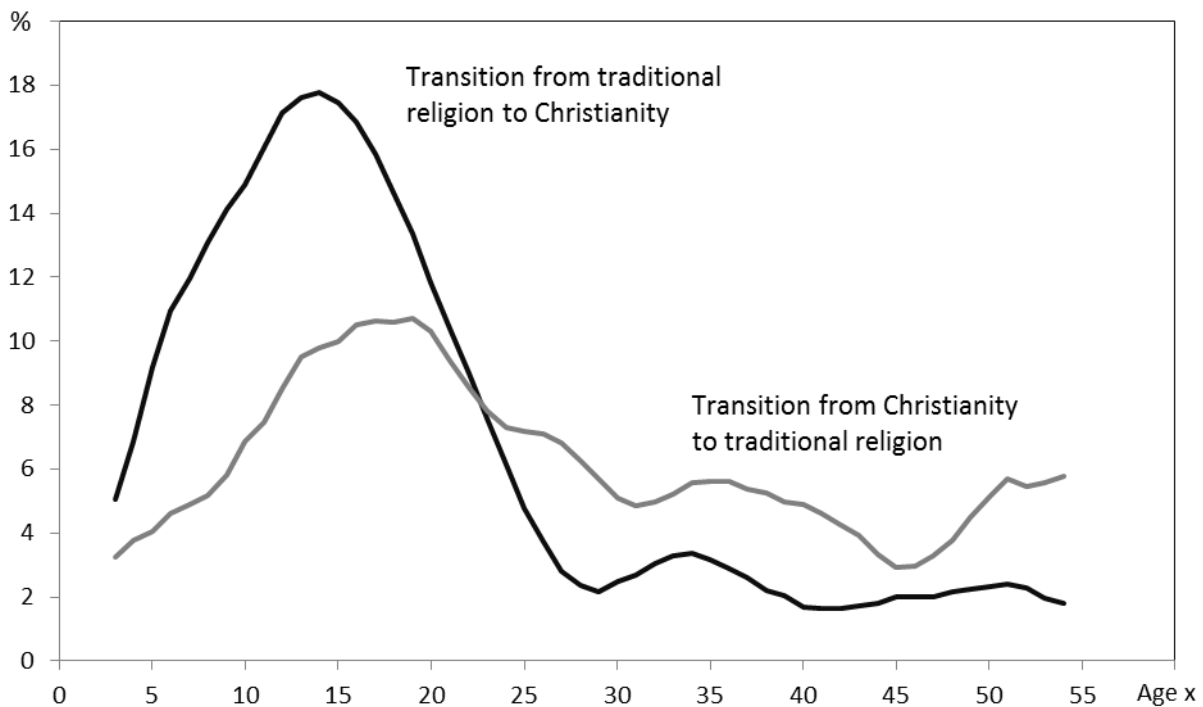
### Religious practice and age

The probability of switching religion within five years changes follows specific age patterns (Figure 3). For individuals who were not born Christians, *joining Christianity is clearly a matter of youth* – and this holds true for all cohorts (Table 3). A young person aged between 10 and 19, has a probability of approximately 17% of shifting from Traditional to Catholic or Protestant religion within five years. This probability drops to around 2% or 3% after age 25, without any significant increase later on. The attraction of Christianity during adolescence must be considered in relation to the organization and the social structuring of this period in individuals' lives.

Among the Bwa, youth is period of life with a special status: it is a time of exception, an unspoilt time of opportunity, where individuals are deemed to have acquired the maturity of an adult while still being free of any responsibilities. The entry into youth is associated with a new lifestyle, dominated by peer relationships. Adolescents usually leave their parents' homes to sleep among friends – for boys, in unsupervised groups; for girls, under the responsibility of an old woman. They join their families for meals and work, but organize their own social lives together. This period also corresponds to experiences of labour migration, and thus to the discovery of new areas, including cities (Hertrich and Lesclingand, 2012). It is marked by numerous collective activities, both for work and for entertainment, the common denominator of which is the value accorded to sociability and being carefree. During the growing season, young people organize themselves into work associations, by neighbourhood or by affinity, in order to collect resources for forthcoming celebrations or to fulfil the necessary commitments when one of their own becomes engaged to be married. During the dry season, evening chats at each other's dwellings, dances organized by the girls, and, formerly, wrestling matches among the young men complement village festivities, with the consequence of increasing the number of meeting places and spaces for personal and group esteem. Adolescence is a period of play and of “time off” before marriage and the responsibilities associated with adulthood. This very free organization of youth is, however, an integral part of the social structuring of the younger generations: it is a parenthesis that distracts the young, and thus keeps them at a

**Figure 3. Probability (%) at age x of changing religion within 5 years**

- 1) Probability for a follower of a traditional religion at age x of switching to Christianity (Catholic or Protestant) between the ages of x and x+5
  - 2) Probability for a Christian (Catholic or Protestant) at age x of switching to a traditional religion between the ages of x and x+5
- (Lifetable data, Pre-1985 birth cohorts, both genders combined, 5-point moving averages)



distance from the “serious business” that is controlled by family leaders, in particular the arrangement of their future marriages. Membership of Christianity fits wholly into this context. For young people, it defines a space of additional sociability and distraction. Indeed, the Catholic and Protestant communities offer group activities at village level (mutual aid associations, choirs, community fields, organization of weekly services and grand ceremonies, etc.) or beyond (catechism courses, literacy courses, theatrical events, religious events, etc.). In this regard, they extend and expand the existing “menu” of youth activities while also allowing young people to broaden their horizons a little and become integrated into wider networks. “When you’re young, going with the Catholics is like a holiday”, one of our informants told us. For family elders, the integration of young people into Christian communities is just another of the experiences and freedoms that adolescents enjoy, and is seen as an activity that presents no issues and has no real consequences.

Indeed, joining the Christians during adolescence does not necessarily imply a definitive or even sustainable affiliation. Furthermore, the rise in Christian membership during adolescence is mirrored a few years later by an increase in the number of transitions from

a Christian religion to the traditional religion (Figure 3). The probability of abandoning the Christian religion within five years is around 10% for a Christian aged between 13 and 20. The risk then diminishes, although the number of people leaving Christianity still exceeds the number who join. After age 25, for instance, the probability of a Christian switching to the traditional religion is almost twice that of a transition from the traditional religion to Christianity. In other words, the practice of Christianity after age 25 years is weakened on both sides, i.e. by the scarcity of new members and by attrition due to people turning to other religions. In this connection, there is nothing surprising about the rise in the number of individuals returning to the traditional religion after age 50 (Figure 3): it is not uncommon for long-time Christians to return to the tradition when they reach the age to take on lineage-related responsibilities, including those of the traditional cults.

#### Reversible practices

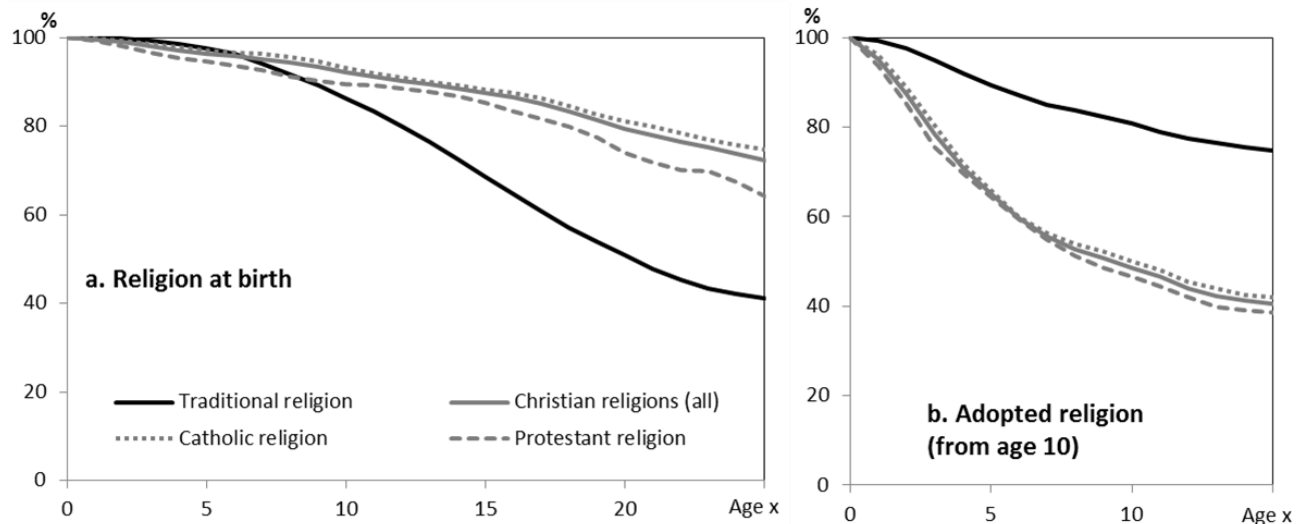
Outcomes of religious sequences by duration of affiliation provide another illustration of religious instability. Figure 4 represents the survival of religious affiliation by duration, separating birth religion and religion adopted after age 10. Regardless of the religion (traditional, Catholic or Protestant), the probability of departure is very

high, exceeding 50% at age 25 for birth religions and adopted religions alike (results not shown). However, the profiles are different for traditional

and Christian religions, as well as for primary membership (at birth) and secondary membership.

**Figure 4. Outcome of religious affiliations.**

Proportion (%) of religious sequences still underway according the duration of affiliation. Primary affiliations (from birth) and secondary affiliations (from age 10) (Life table data , 3-point moving averages) (Life event history survey, 2009–10 update, SLAM project, Mali, INED)



For individuals born into families that practice the traditional religion, adopting another religion is a common occurrence. At age 25, for all birth cohorts taken together, only 4 out of 10 individuals will have remained exclusively within the tradition (Figure 4a). Moves to Christianity that occur at this time are no more sustainable: a fifth end within 3 years, a third within 5 years, half within 10 years, with the proportion rising to over 60% after 15 years, for Catholics and Protestants alike (Figure 4b).

For Christians by birth, the probability of changing is lower than for their traditional-religion counterparts or for those who adopt Christianity after age 10. However, this probability is far from negligible, with over a quarter of Christians by birth leaving the religion before age 25 (Figure 4a). The indicator is broadly similar for secondary membership to the traditional religion (Figure 4b).

The indicators converge to demonstrate not only the plurality, but also the dynamics, of religious practices. The behaviours observed are far from marginal: they concern the majority of the population.

**Multiple experiences**

Ultimately, most individuals will, at some point in their lives, become affiliated with different religions. Within the cohorts born before 1985 (aged over 25 at the time of the most recent

survey), 75% of individuals have experienced at least one sequence in a Christian religion (15% have experienced several) and 80% have experienced at least one sequence in the traditional religion (30% have experienced several) (Table 3). These figures are to be regarded as the bare minimum: first, because the cohorts will continue to have other experiences of different religions as they get older; and second, because there are likely to be omissions in the retrospective recording of life event histories. Our data demonstrate that different religions coexist in the environment and in people's lives. They disprove both the idea that there is a segmentation between religious communities and the idea that individual religious practice are continuous. While cross-sectional data suggested a broadly equal division of the population between Christians and followers of the traditional religion, the life event history data demonstrates the mobility and cumulative nature of religious experiences. Of those respondents who were Christians at the time of the survey, 60% reported earlier sequences in the traditional religion (Table 3). Of those who reported following the traditional religion, nearly 60% reported at least one earlier sequence as Christians. According to the number of religious sequences reported by individuals since birth (Table 3), religious stability is the exception rather than the rule, and

**Table 3. Religious mobility. Indicators by birth cohort**

(Life event history survey, 2009–10 update, SLAM project, Mali, INED)

Indicators	Birth cohorts				Gender (Cohorts <1985)			No. of obs.
	<1940	1940– 1959	1960– 1974	1975– 1984	Male	Female	All	
<b>Probability (%) at age x of changing religion before age x+5</b>								
<i>For 100 individuals of traditional religion at age x (transition to Christianity)</i>								
Age 10–19	11	16	21	17	15	18	17	900
Age 20–29	7	8	5	3	8	5	6	635
Age 30 and over	3	3	1	-	3	2	2	468
<i>For 100 individuals of Christian religion at age x (transition to a traditional religion)</i>								
Age 10–19	-	10	10	8	8	11	10	496
Age 20–29	9	7	8	8	9	7	8	570
Age 30 and over	8	4	4	-	6	4	5	336
<b>Practice of different religions (*)</b>								
<i>Religion practised at least once in their lifetime. For 100 individuals from a given birth cohort</i>								
Traditional	99	88	78	67	77	82	80	1202
Catholic	48	56	53	53	55	51	53	1202
Protestant	18	26	36	33	26	35	30	1202
Christian (all)	62	73	80	78	75	76	75	1202
<i>Only religion practised throughout their lifetime. For 100 individuals from a given birth cohort</i>								
Traditional	37	25	19	21	23	23	23	1202
Catholic	1	9	17	23	19	11	15	1202
Protestant	0	1	3	6	3	4	3	1202
Christian (all)	1	11	22	32	23	17	20	1202
Stable (all)	37	36	40	51	46	38	42	1202
Unstable (all)	63	64	60	49	54	62	58	1202
All	100	100	100	100	100	100	100	1202
<i>Only religion practised throughout their lifetime. For 100 individuals from a given religion and a given birth cohort</i>								
Traditional	49	43	35	46	41	44	43	662
Catholic	3	31	59	62	62	38	49	362
Protestant	0	13	22	38	28	22	25	166
Christian (all)	2	26	46	54	53	32	42	528
All	37	36	40	51	46	38	42	1202
<b>Religious mobility and reversibility of membership (*)</b>								
<i>Number of religious phases. For 100 individuals from a given birth cohort</i>								
1	37	36	40	51	46	38	42	504
2	17	25	22	28	19	28	24	285
3	33	25	30	15	25	25	25	297
4+	12	14	9	6	10	9	10	116
All	100	100	100	100	100	100	100	1202
<i>At least 2 phases of the same religion. For 100 individuals from a given birth cohort</i>								
Traditional	45	36	32	16	31	29	30	1202
Catholic or Protestant	11	18	14	12	12	15	14	1202
<i>Return to traditional religion. For 100 individuals who became Christians after birth</i>								
	70	63	61	46	67	55	60	564
<i>At least 1 Catholic phase and 1 Protestant phase. For 100 individuals of a given birth cohort</i>								
	4	9	8	8	6	10	8	1202
(*) Excluding individuals for whom the end of the observation period occurred before age 20.								

before 1985, 35% of individuals had had at least three religious sequences. Religious mobility cannot, therefore, be reduced to a single move from an initial, inherited religion to a personally chosen religion; an individual's religious orientation may be subject to change throughout his or her lifetime, and is never really considered to be definitive.

The pluralism in individuals' religious experiences is captured in our survey diachronically, via the succession of religious sequences in individuals' life event histories. Although not borne out by our data, this plurality also exists in terms of a certain porosity between religions: being a Christian does not mean that the beliefs and rituals of the traditional religion have been rejected, and nor does it reflect a greater willingness to submit to all the directives of the church; similarly, following the traditional religion does not mean that Christian structures are rejected either. Accordingly, the degree of commitment to Christianity, signified by advancement through the different stages outlined above, is highly variable. Among Catholics by birth aged over 20, only 53% had completed all the steps and 19% had completed none, versus 29% and 42% for secondary members. For Protestants, the proportion without commitment is about 60% for primary as well as secondary members aged over 20.

The observed religious pluralism and mobility may appear somewhat surprising when compared to the classic approach of an unique and definitive religious affiliation. However, they are consistent with anthropologists' observations regarding investment in, and usage of, religious frameworks in Sub-Saharan Africa. The practical liberties taken with religious institutions do not indicate that religion is treated with levity or superficiality; on the contrary, it more likely reflects the importance attached to religion, together with the range of related opportunities. In this context, moving closer to one religious community or moving away from another is a reflection not only of beliefs, but also of choices and trade-offs – that is to say rationality and practicality with regard to existing structures. It thus becomes clear that the behaviours or lifestyle choices of individuals would benefit from being considered in relation to the religion declared by the applicant at the time of the event, or in relation to their previous religious trajectory. By contrast, taking into consideration the religion declared at the time of the survey – in other words, typically at a time that is disconnected from the event in question –

seems more difficult to justify in contexts where religious segmentation is not the rule.

## Discussion

The treatment of religion could no doubt be cited as a typical case for segmentation between disciplines. On the one hand, anthropologists and sociologists have long known that pluralism and mobility were at the heart of religious practice in Sub-Saharan Africa, but without evaluating and documenting these phenomena statistically. On the other hand, demographers typically ignore the complexity of these practices and analyse religion as a state variable, considering that religious affiliation is acquired once and for all at birth.

And yet, some statistics are available: most censuses and surveys include a question on religion. As things stand, religion is considered as a component that cannot be ignored, if only because of the standards and values that it promotes. Introduced as an explanatory variable in the statistical models, it is often treated as a proxy for "cultural affiliation" – a sort of "black box" through which pass different forms of socialization and community controls that guide individual behaviour.

However statistical approaches lead to mixed conclusions on the influence of religion on demographic indicators (child mortality, fertility, contraception, etc.). On the one hand, the significance of correlations highlighted is often qualified either by cross-national variations in group differences, which may be higher than the average difference between religions (on fertility, see for instance Heaton 2011), or by controlling socio-economic variables (on infant mortality, the use of neonatal care or women's autonomy, see for instance Addai 2000, Akoto 1990, Boco and Bignami 2008, Gyimah 2007, Funseini and Kalule-Sabiti 2015). On the other hand, authors agree on the importance of the context – in particular historical and socio-economic – in which a religion has developed and is practised in order to understand its influence on individual behaviours and collective structures (Agadjanian 2001, Goldscheider 1971, McQuillan 2004, Solanke and al 2015). Identity-related claims, the integration of the religious group into the general population, or the charisma of religious leaders and their influence on local decision-makers are all, for example, parameters that can modify the general orientations of a religious institution and impact individual membership trends.

The question of the relevance of the variables used to define religious affiliation must also be raised. In Malawi, questions about the intensity

of religious practice and beliefs have highlighted the influence of religion on practices associated with HIV/AIDS (condom use and spousal fidelity), whereas this was not perceptible using the conventional variable on religion in the survey (Trinitapoli and Weinreb 2012). The relevance of indicators on church attendance and religiosity has also be highlighted for the study of contraception in Mozambique (Agadjanian 2001, 2013) and fertility in Nigeria (Avong 2001).

The approach adopted in our project in Mali, with the collection of religious trajectories, similarly pleads for a reconsideration of the data used to define the religious affiliation of individuals. This life event history-based approach, whose application to religion is, to our knowledge, unique in Africa, confirms not just the existence of significant religious mobility, but also the feasibility of collecting such data in the context of a rural West African population.

A comparison with indicators resulting from individuals' religious trajectories highlights the incomplete nature and limitations of conventional indicators based on the religion reported at the time of the survey. It also suggests the potential of using a broader range of indicators on religion, and therefore of using indicators constructed and selected according to the research question. We propose to discuss this issue further on the basis of two empirical applications: establishing the prevalence of religions in the population studied, and defining

religious affiliation at the time of the event being studied.

*What is the prevalence of a religion?* Where levels of religious mobility are high, the prevalence of a religion can vary considerably depending on the criterion used to define its scope. Table 4 provides an illustration for cohorts born between 1940 and 1960, who are old enough to have had time to practise different religions, and young enough to have grown up in a context of religious pluralism from childhood onwards. The proportion of individuals reported as Christian at the time of the survey was 40%, but this figure drops by half if we consider only those individuals who were born Christians, and falls even further, to 10%, if we only include those who have always been Christians throughout their lives. By contrast, Christianity appears to be the majority religion if we take into consideration the three quarters of individuals who have been Christians at least once in their lives. The same exercise can be applied to the traditional religion, with a prevalence that varies from 25% to 90% depending on the criterion selected. As a consequence of religious pluralism and mobility, any analysis of the religious structure of the population will therefore vary considerably depending on the criterion used, from predominantly Christian to predominantly traditional to mixed as the case may be. The chosen definition can therefore have extreme consequences on the religious configuration observed.

**Table 4. Prevalence (%) of traditional religion and Christianity according to different definitions of religious affiliation. 1940–59 birth cohort.**

(Life event history survey, 2009–10 update, SLAM project, Mali, INED)

Definition	Proportion (%) of individuals who are affiliated to:	
	Christian religion (Catholic or Protestant)	traditional religion
Only religion practised since birth	11	25
Birth religion	18	82
Religion at age 20	40	60
Religion at the time of the survey (last round or cut-off)	40	60
Has practised this religion at some point in his/her life (regardless of duration)	72	88

*To what extent does the religion recorded match the event studied?* The influence of religion is typically studied by comparing the probabilities of experiencing a given event according the religion reported at the time of the survey. When the events studied are past events recorded retrospectively, there is a risk of a desynchronization between the situation

experienced during the event and the situation recorded at the time of the survey. What is the statistical weight of this discrepancy? What proportion of events is wrongly associated with the religion reported at the time of the survey because the person was following a different religion at the time of the event in question? We calculated this discrepancy indicator for two

types of events: births of children to women surveyed (all-order births or first-order births only), and first marriage among women and men (Table 5). The lowest discrepancies rates are observed for births (all orders), which overall stand at around 12%, but vary between 15% and 20% for children born before 1995 to Christian mothers. The error rate is higher for other events, such as first-order births and first marriages. These events take place in early adult life, a period when religious mobility is particularly high, which explains the higher discrepancy between the event and the religion at the time of the survey, especially when a considerable amount of time has elapsed between the two. Overall, for all cohorts and all religions combined, a fifth to a third of all events are listed in the wrong category (Table 5). Discrepancies are particularly frequent for events experienced when the person was a Christian: half of first marriages of young Christian women between 1975 and 1995, and

40% of first marriages of young Christian men between 1960 and 1984, would be incorrectly classified as traditional-religion marriages if the respondent's religion at the time of the survey were recorded. The error rate for events held in the context of the traditional religion, while lower, is far from negligible; discrepancies would occur in the case of a quarter of female first marriages. These rapid assessments alone should suffice to suggest the potential for errors that can be generated by assimilating the religion reported at the time of the survey to a unique and stable religious affiliation. Indeed, how can we hope to measure the influence of a religion on an individual behaviour trait – for example, of Christianity on the age at which women marry – if a significant proportion of events related to it – here, over a third – are not taken into account and instead misclassified? It is easy to see that, under these conditions, analyses can be distorted and differentials can be difficult to identify, or even completely erased.

**Table 5. Religion at the time of a given life event and religion at the time of the survey. Discrepancies (%) by religion at the time of the event and by event date**

In measuring discrepancies, a distinction is made between 4 categories (traditional, Catholic, Protestant and Muslim religions)

(Life event history survey, 2009–10 update, SLAM project, Mali, INED)

Indicators	Year of the event					
	<1960	1960–1974	1975–1984	1985–1994	1995+	All
<b>Live births (all orders), by mother's religion</b>						
Proportion (%) of discrepancies, by mother's religion at the time of the child's birth						
Christian	20	14	18	15	13	15
Traditional	7	14	14	8	4	9
All	9	14	16	12	9	12
No. of observations	422	576	632	788	1,139	3,557
<b>First-order births, by mother's religion</b>						
Proportion (%) of discrepancies, by mother's religion at the time of the child's birth						
Christian	30	26	32	36	20	26
Traditional	12	21	23	15	10	16
All	16	23	28	27	18	22
No. of observations	94	97	110	117	227	645
<b>First marriage</b>						
Proportion (%) of discrepancies, by religion at the time of marriage						
<i>Marriages of women</i>						
Christian	-	30	58	47	23	36
Traditional	21	28	29	24	22	24
All	28	29	44	40	24	31
No. of observations	111	96	123	124	294	748
<i>Marriages of men</i>						
Christian	-	41	42	27	18	31
Traditional	11	21	9	5	8	10
All	29	29	28	18	14	21
No. of observations	69	78	85	102	206	540

*Versatile indicators?* While our data shows that religion at the time of the survey is not a suitable indicator for studying religious practices and their relationship to demographic behaviours, neither do they enable a definitive decision to be made in favour of an alternative indicator. The religion practised at the time of the event in question would seem a more coherent and satisfactory solution. But is this enough? Consideration of religious mobility and the different religious references and backgrounds to which the individual has been exposed would certainly justify the development of additional indicators, constructed in accordance with the issues addressed and the research hypotheses involved. For example, if the influence of Christianity on individual behaviour is approached from the angle of challenging the monopoly of traditional norms, then an indicator that takes into account past experience of Christianity, however intermittent, would seem justified. If the community networks mobilized through religious affiliation are important in the interpretation of results, then the religion practised at the time of the event, possibly consolidated by information on the degree of commitment, would seem more relevant. The advantage of an approach based on personal religious histories is precisely that it lends itself especially well to the construction of versatile, variable indicators that take into account the religion at the time of the event in question and its place within a broader trajectory.

*Limitations and findings.* The research conducted in Mali is not immune to the typical limitations of small-scale observations: first, issues regarding the representativeness of results, and second, issues regarding the replicability of the process. The level of religious mobility recorded is certainly not extrapolable per se, but the anthropologists' qualitative data, as well as certain quantitative indicators (see Table 1 and Part I), suggest that religious pluralism and mobility are large-scale phenomena that ought to warrant special attention. Data collection issues to be considered are expressed in different terms for different surveys. The collection of personal religious histories via demographic surveillance systems or other small-scale surveys would help to determine the relevance, for other field studies, of the approach implemented in Mali, in terms of both feasibility and results. In larger operations, such as the DHSs, it is probably unrealistic to hope for the addition of a whole module on religion; however, a few targeted questions would be enough to ensure a less

simplistic approach to religious practices. First, a question on whether respondents have previously practised other religions than their current one (and if so, which ones) would enable the construction of more subtle indicators concerning religious mobility and affiliation. Second, a question on the religion practised at a particular time of life – such as childhood if we wish to approximate socialization conditions, or during adolescence – that corresponds to a particularly well-developed line of demographic research, and which also corresponds to high levels of religious mobility among the Bwa, would be useful. Third, a question on the attachment to traditional beliefs would make sense in the contemporary context, where the traditional religion is reported less and less by respondents, but apparently remains an important bedrock of practices and representations. Finally, despite its limitations, some existing data could be used to test indicators with regard to religious pluralism. Indeed, in operations that collect information on religion for the whole population via household questionnaires, such as censuses or certain DHSs, it would be possible to construct indicators relating to the diversity of religions present at different meso-scales (household, neighbourhood or village) and relating to the majority religion, which would in turn make it possible to take local religious pluralism into account, an individual's religious environment and her/his position in terms of affiliation to the majority or minority religion.

Taking account of religious affiliations in Africa and their influence on the lives of individuals clearly requires greater imagination in terms of the questions considered and the methodology used, which existing sources as well as specific approaches can help improve.

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