How to measure individual’s religious affiliation in sub-Saharan Africa?
Lessons from a longitudinal survey in rural Mali.

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Projet Slam – Suivi longitudinal au Mali
Projet ANR-DyPE – Dynamiques de la parentalité et de l’enfance en milieu rural africain - (ANR-12-BSH1-0005-01)
Religious affiliation in Sub-Saharan Africa

• Religion pluralism and co-religious affiliation

→ Conversion steps from traditional to Christian religion (Horton, Fisher, Peel...)
→ Multiple religious affiliations (Barbier) with syncretism practice
→ Flexibility and pragmatism of religious practice (Dubresson, Lasseur and Mayrague)
→ Reversible conversion (Langewiesche)
Approach of religious affiliation in censuses and surveys

• Data set and religious modality variables
  → Information from national surveys (DHS) and census data
  → Religion at the time of the survey
  → Religious affiliations are collected with strict modalities: Catholics, Protestants, Muslims, Animists
  → Used as explanatory variables in statistical analysis and models (like education attainment, or residence status)
  → However, some datasets and surveys include other religious questions like religiosity (Malawi project, Pewforum dataset)

• For which results?
  → Differences are observed between religious affiliations, but they usually lose significance when included in statistical models
  → Correlations vary from one study to another (McQuillan, Cau, Sevoyan, Agadjanian)
  → Results from specific project suggest that other characteristics (context, intensity) could matter more than religion itself
Population and dataset

- SLAM project dataset
- South-East Mali
- Life event survey implemented in 1988-89 with waves every 5 years (last one in 2009-10)
- A rural population living from agricultural subsistence activities
- 3165 biographies
Religious itinerary in the life event survey

- Approaching religious affiliation complexity:
  - Religious itinerary, with religious affiliation changes during the life course

<table>
<thead>
<tr>
<th>Rang</th>
<th>Religion</th>
<th>Année de l’adoption</th>
<th>Durée</th>
<th>Engagement chrétien</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Naissance</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- Level of involvement in Christian religion: baptism, communion...
- Proximity to traditional religion: initiation among Christian children
Bwa religious context

• Religious pluralism:
  → Traditional cults (villages, lineages, individuals)
  → Catholic and Protestant religions
  → No Muslims

• Establishment of Christian religion:
  → Catholics: 1922 (Mandiakuy mission)
  → Protestants: 1936 (Sanekuy mission)
  → Diffusion of Christian religion since the middle of the XX’s century
### Religion in the survey: plurality of religions

#### Population (%) by religion at the time of the last survey

<table>
<thead>
<tr>
<th></th>
<th>Men</th>
<th>Women</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catholic</td>
<td>28</td>
<td>36</td>
<td>32</td>
</tr>
<tr>
<td>Protestant</td>
<td>14</td>
<td>16</td>
<td>15</td>
</tr>
<tr>
<td>Christian</td>
<td>42</td>
<td>52</td>
<td>47</td>
</tr>
<tr>
<td>Traditional</td>
<td>58</td>
<td>48</td>
<td>53</td>
</tr>
</tbody>
</table>
Practice of Christian religion: cohort effect and age effect

Proportion (%) of Christians by age and birth cohort

Age

% of Christian

<1940
1940-1959
1960-1974
1975-1984
1985-1999
2000+
Religious mobility: a youth behaviour?

Religion switching probabilities over the next five years by age

Traditional religion to Christian religion

Age x

%
Religious mobility: a youth behaviour?

Religion switching probabilities over the next five years by age

Traditional religion to Christian religion

Christian religion to Traditional religion
Reversible practices

- **a. Birth religion**
  - Christians
  - Traditionnal

- **b. Religion adopted after 10 years old**
  - Traditionnal
  - Christians
Prevalence (%) of traditional and Christian religions according to different definitions of religious affiliation.
1940-1959 birth cohort

<table>
<thead>
<tr>
<th>Definition</th>
<th>Proportion (%) of individuals who are affiliated to:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>a Christian religion (Catholic or Protestant)</td>
</tr>
<tr>
<td>Only religion practised since birth</td>
<td>11</td>
</tr>
<tr>
<td>Birth religion</td>
<td>18</td>
</tr>
<tr>
<td>Religion at age 20</td>
<td>40</td>
</tr>
<tr>
<td>Religion at the time of the survey (or at the end of the observation period)</td>
<td>40</td>
</tr>
<tr>
<td>Has practised this religion at some point in their life (regardless of duration)</td>
<td>72</td>
</tr>
</tbody>
</table>
Religion at the event vs. religion at the time of the survey: measurement of discrepancies
Religion at the event vs. religion at the time of the survey: measurement of discrepancies

Average proportion (%) of cases of discrepancies, by religion at the time of the survey and by event date

- **Events**
  - 100 first births → 22 affiliated with a different religion
  - 100 Christian births → 26 affiliated with traditional religion

**Survey**
Conclusion

• Religious itineraries can be recorded through quantitative survey
• The complexity of religious itineraries is confirmed in our dataset
• A large majority of people experience multiple religious affiliations during their life
• This complexity is ignored by standardized surveys, limited to the religion at the time of the survey
• With probable biases in terms of results: religions’ prevalence, impact on behaviors...
How to measure individual’s religious affiliation in sub-Saharan Africa? Lessons from a longitudinal survey in rural Mali.
A majority of people experience multiple religious sequences during their life

<table>
<thead>
<tr>
<th>Itineraries</th>
<th>&lt;1940</th>
<th>1940-1959</th>
<th>1960-1974</th>
<th>total</th>
</tr>
</thead>
<tbody>
<tr>
<td>C</td>
<td>1%</td>
<td>9%</td>
<td>18%</td>
<td>11%</td>
</tr>
<tr>
<td>P</td>
<td>0%</td>
<td>1%</td>
<td>3%</td>
<td>2%</td>
</tr>
<tr>
<td>T</td>
<td>37%</td>
<td>25%</td>
<td>19%</td>
<td>25%</td>
</tr>
<tr>
<td>T-&gt;C</td>
<td>13%</td>
<td>13%</td>
<td>7%</td>
<td>10%</td>
</tr>
<tr>
<td>T-&gt;P</td>
<td>4%</td>
<td>6%</td>
<td>8%</td>
<td>7%</td>
</tr>
<tr>
<td>T-&gt;C-&gt;T</td>
<td>25%</td>
<td>15%</td>
<td>11%</td>
<td>15%</td>
</tr>
<tr>
<td>T-&gt;P-&gt;T</td>
<td>6%</td>
<td>7%</td>
<td>12%</td>
<td>9%</td>
</tr>
<tr>
<td>C-&gt;T</td>
<td>0%</td>
<td>4%</td>
<td>3%</td>
<td>3%</td>
</tr>
<tr>
<td>Other</td>
<td>14%</td>
<td>21%</td>
<td>19%</td>
<td>19%</td>
</tr>
</tbody>
</table>

Total: 38% 17% 24%
La question de la religion chez les Bwa

(% Women of 15-49 years, EDS-DHS surveys)

<table>
<thead>
<tr>
<th>Country</th>
<th>% Muslims</th>
<th>% Christians</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bénin (2006)</td>
<td>21</td>
<td>55</td>
</tr>
<tr>
<td>Côte d'Ivoire (2005)</td>
<td>37</td>
<td>46</td>
</tr>
<tr>
<td>Burkina Faso (2010)</td>
<td>62</td>
<td>30</td>
</tr>
<tr>
<td>Guinée (2005)</td>
<td>85</td>
<td>11</td>
</tr>
<tr>
<td>Mali (2006)</td>
<td>92</td>
<td>3</td>
</tr>
<tr>
<td>Sénégal (2010)</td>
<td>95</td>
<td>4</td>
</tr>
<tr>
<td>Niger (2006)</td>
<td>99</td>
<td>1</td>
</tr>
</tbody>
</table>