Variations in First Union Dissolution Patterns among sub-Sahara African cultures: the case of Lebou, Peuhl, Sereer, Toucouleur, and Wolof in Senegal

1. INTRODUCTION

In sub-Saharan Africa (SSA), union dissolution has become one of the main drivers of family instability in most countries (Clark and Brauner-Otto 2015). In this region, under the influence of acculturation factors and socioeconomic modernism, major changes have been observed in recent decades in various areas including both mode of union formalization and their subsequent stability (Adjamagbo et al. 2014). The investigation of the evolution of family patterns has begun to draw the attention in this part of the world not only of researchers but also of policymakers. However, to date, due limited data a little is known about union dissolution in SSA (Clark and Brauner-Otto 2015). The changes in family transformations are observed in the mode of constitution of the unions, and in their dynamics: rise of the age at first union, simplification of union formation rules and the extent of celibacy (Adjamagbo et al. 2014). Based on systematic estimates of union dissolution in 33 SSA countries including Senegal, Clark and Brauner-Otto (2015) found that beyond substantial geographic variation, union dissolution is common in most countries investigated and far exceeds the risk of widowhood as a cause of union instability. Progress in education especially for girls was revealed to be among the leading causes of those changes (Adjamagbo et al. 2014; Adjamagbo and Delaunay 1999). The great diversity in social, economic and cultural practices, including marital ones, across the subcontinent likely yields subnational variation in prevalence of union dissolution (Smith-Greenaway and Clark 2015).

Meanwhile, despite the mounting interest in explaining trends and differentials in union transformation in SSA during the past decades, evidences of the ethnicity membership variations in union dissolution remain fragmentary and unknown. As a result, the role of ethnicity membership in unions dissolution variations remains obscured in this region including Senegal. In Senegal, underlying factors and mechanisms of unions transformation remain under investigated. Although predominantly Muslim, the Senegalese's ethno-linguistic composition is much complex comprising many ethno-linguistic groups among which Wolof (Wolof, and Lebou), Pulaar (Fula, Laobe, Peulh, Toucouleur), Sereer, Diola, Manding (Malinke, Manding, Soce), Other (Balante, Bambara, Bassari, Conagui, Khassonke, Mancagne, Manjaag, Maure, Sarakhole, Other) (Pierre, Aliou and Ibrahim 2000). Each ethnic group with its own customs and dialect. The largest single ethnic group is the Wolof, who counts for over one-third of the population (Culture of Senegalese Forum, 2016)[1].

Studies examining families' transformation in general, and the union dissolution in particular, within Senegal are scarce. Until the eve of independence, the investigation of family changes held little attention of researchers as well as Senegalese policymakers. For instance, the results of Dakar's 1955 census paid little attention to the subject (Antoine 2009). Moreover, the role of the ethnic background, well known in sociodemographic changes, remain underexplored in the evolution of family patterns studies in SSA in general and Senegal in particular. This study aims to examine variations in first unions dissolution between ethnic groups within Senegal. It covers the whole country, in reverse to some past studies which focused on Dakar (capital of the country) (Dial 2014). In addition, Dial

[1] Read more: http://www.everyculture.com/Sa-Th/Senegal.html#ixzz4HOCQD5Fm (accessed on August 15, 2016)

(2014) did not assess variations in unions dissolution between ethnic groups. This study attempts to assess the variations in first union dissolution patterns among the Lebou, Peuhl, Sereer, Toucouleur, and Wolof in Senegal. It explores the specific effect of ethnicity and identifies its mechanisms of action in first unions dissolution in 2008-2009 among men and women from these ethnic groups.

2. DATA AND METHODS

2.1. DATA

The study draws on data from the study "vulnerabilities and chronic poverty in Senegal" conducted in 2008-2009, based on mixed methods design combining quantitative and qualitative approaches. Qualitative approach consisted of collection of respondents' life narration while the quantitative approach based on quantitative biographies collection. This paper used data from the quantitative approach of the study. The study was nationally representative with two-stage cluster sampling drawn from the study "enquête de suivi de la pauvreté (EPS, 2006)", which was based on national census bodies. At the first stage, districts (75) were selected and households (16 per district) at second degree. Thus, 75 districts were sampled and 1,200 (75*16) households were reached. The study reached its initial sample size (a total of 2,400 respondents on account of 2 respondents per household), by adopting a replacement strategy in case of unavailability of a household. The quantitative approach, conducted during 6 months, used two types of questionnaire. Household questionnaire and biographic questionnaire. Respondents (including men and women) were aged 10 years or above at the time of the survey. For each union, among others, its rank, and the marital status of partners before the union were collected. Likewise, the outcome of the union (ongoing or dissolved or widowhood), and the date of its termination (if any) were collected.

2.2. Methods

According to the nature of the data (biographical) and taking into account the objectives of the study, two types of methods relating to event history analysis are more appropriate. These are Kaplan-Meier comparative curves (at descriptive level) and Cox semi-parametric regression models (at multivariate level). The Kaplan Meier curves are used to explore the comparative survival curves of first unions about dissolution according to the five ethnic groups.

The adequacy of Cox semi parametric proportional hazards regression depends on how well one of its major assumptions have been heeded. The assumption is that the time independence of the covariates in the hazards function, that is, the proportional hazards assumption. This assumption has been checked. At least the main independent variable (ethnicity), almost, met that assumption.

2.3. Dependent variable

The dependent variable associated with this event is a time variable, measured for each individual subject at risk, as described above. It equals to either the duration of observation (if the event does not occur until the time of the survey) or the duration before event (if it occurs). The time is measured in year.

2.4. Analytical strategy

The study adopted an analytical strategy guided by the searching for mediating causal relationships. It distinguished: main independent variable – X (ethnic group), potential intermediate variables – Zs (Age at first union, education, cumulated fertility, place of residence, and birth cohort), and confounding variables – W_k (Socioeconomic status, existence of domestic/servant, marital status, knowledge of serious mishap/disaster, times of taking meals together daily, and de-cohabitation). The influence of confounding variables was simply controlled. The following equations and series of equations were estimated.

1. Gross effect of ethnic group (an equation of form Y=f(X)) and gross effect of each of the potential intermediate variables (a series of equation of form Y=f(Z)),
2. Effect of each potential intermediate variable net of the effect of ethnic group: a series of equations of form Y=f(Z, X). If a variable mediates the effect of the ethnic group, the effect of this variable net of that of ethnic group should be lower than its gross effects whereas the net effect of ethnic group should be lower than its gross effect,
3. Effect of each potential intermediate variable net of the effect of ethnic group and all control variables W_k: a series of equations of form Y=f(Z, X, W_k). In other words, an equation of form Y=f(Z, X, W_k) for each potential intermediate variable,
4. Net effects. A single equation including all potential intermediate variables and all control variables.

All analyses were performed separately for men and women.

3. KEY RESULTS

3.1. Sample characteristics

Table 1 presents percent distribution of the study population by selected background characteristics. There were five ethnic groups represented in the sample, the top first was Wolof (44.9%), the majority ethnic group in the country, while 22.3%, 15.0%, 11.0% and 6.8% were the Peuhl, the Sereer, the Toucouleur, and the Lebou, respectively.

Table 1: Description of study population by selected variables

Variable	Frequency	Percent
Ethnic groups (1,469)		
Wolof	659	44.9
Lebou	100	6.8
Toucouleur	162	11.0
Peuhl	328	22.3
Sereer	220	15.0
Place of residence (1,474)		
Urban	713	48.4
Rural	761	51.6
Socio-economic status (1,474)		
Non poor	610	41.4
Poor	864	58.6
Existence of domestic/servant (1,447)		
No	1269	87.7
Yes	178	12.3
Education level (1,433)		
Uneducated	595	41.5

Primary	396	27.7
Secondary or above	442	30.8
Age at first union/marriage (1,460)	Mean= 22.6±0.18	
Less than 18 years old	354	24.2
18-25 years old	658	45.1
Above 25 years old	448	30.7
Partner's marital status at the union (1,457)		
Single	1182	81.1
In union / ever been in union	275	18.9
Knowledge of serious mishap/disaster (1,474)		
Never	761	51.6
Before 35 years old	213	14.5
After 34 years old	500	33.9
Times of taking meals together daily (1,398)		
Three times or more	1260	90.1
Twice or less	138	9.9
De-cohabitation (non co-residence after union) (1,379)		
No	1133	82.2
Yes	246	17.8
Birth cohort (1,474)		
Before 1954	314	21.3
1954-64	578	39.2
1965 or above	582	39.5
Cumulated fertility (1,474)		
0	147	10.0
1	131	8.9
2	158	10.7
3 or above	1,038	70.4
Sex (1,474)		
Male	740	50.2
Female	734	49.8

Source: Estimations based on data from the survey "vulnerabilities and chronic poverty in Senegal", 2008-2009

3.2. Ethnic variations in the hazards of union dissolution

In Table 2, were presented results of net effects of the hazard of union dissolution between ethnic groups while taking into account all potential intermediate and control variables in a single equation. It was found that ethnicity variations remain especially among men. The hazard ratios of 2.6 and 5.6 indicate that men in Wolof and Lebou ethnic groups, respectively, have 2.6 times more chance and 5.6 times more chance to experience union instability relative to the Peulh (men), keeping all study variables constant. In addition of ethnicity variations, the influence of 4 selected intermediate variables (cumulated fertility, place of residence, education, and birth cohort) found earlier with significant effects remains.

Table 2 : Hazard of first union dissolution in Senegal : net effect by controlling all study variables (Cox model, under STATA 13)

Variable *(Reference)*	**Gross effects**		**Net effects**	
	Male	**Female**	**Male**	**Female**
Ethnic group (*Peuhl)*				
Wolof	1.2	1.0	2.6**	1.3
Lebou	2.0	1.9	5.2**	1.5
Toucouleur	1.0	1.6	1.2	1.4
Sereer	1.0	0.8	1.1	0.8
Age at first union/marriage (*< 18)*				
18-25 years old	0.8	1.0	0.7	0.8
Above 25 years old	1.0	1.7	0.7	0.6
Cumulated fertility (*3 or above)*				
0	20.2**	**7.8****	**41.0****	**6.5****
1	16.8**	**10.4****	**32.0****	**11.2****
2	8.7**	**4.1****	**10.9****	**3.3****
Place of residence (*Urban***)**				
Rural	0.6**	**0.3****	**0.6***	**0.6+**
Education level (*Uneducated)*				
Primary	0.8	2.0**	0.6+	1.5
Secondary or above	0.8	0.2**	**0.8**	**0.2****
Birth cohort (*Before 1954)*				
1954-64	1.6+	1.0	1.0	0.8
1965 or above	2.9**	**2.9*****	**1.6**	**2.2***
Socio-economic status (*Non poor)*				
Poor			1.6+	0.8
Existence of domestic/servant (*No***)**				
Yes			1.3	1.0
Partner's marital status at the union (*Single***)**				
In union/ ever been in union/married			0.9	0.9
Knowledge of serious mishap/disaster (*No***)**				
Yes			1.2	0.8
Times of dining together daily (*Three times***)**				
Twice or less			1.5	1.3
De-cohabitation (stopping living together) (*No***)**				
Yes, job			1.0	0.3
Yes, migration of partner			1.1	0.5+
Yes, couple problems			3.7**	2.0

** means significant at 1 % level; * significant at 5 % level, + significant at 10%

Source: Estimations based on data from the survey "vulnerabilities and chronic poverty in Senegal", 2008-2009

4ADD. CONCLUSION

This study investigates variations in first unions' dissolution among five ethnic groups viz. Wolof, Lebou, Peuhl, Sereer, and Toucouleur in Senegal using data from biographic survey "vulnerabilities and chronic poverty" conducted in 2008-2009. Its central goal was to examine the specific effect of ethnicity and to identify the underlying mechanisms of action of ethnic variations in union dissolution among men and women. Bivariate analyses based on Kaplan Meier comparative curves confirmed expected theoretical results with regards to the association of ethnicity and first unions' dissolution. Further analyses lied on hazard regressions models.

Results support the fact that there are cultural differences between ethnic groups that not only cannot be explained by standard sociological and demographic variables, but that become apparent only when taking the effect of these standard variables. Indeed, unadjusted hazards reported no ethnic differences in union dissolution. Net differences between ethnic groups become apparent only after controlling for the effects of potential variables like cumulated fertility, education and birth cohort. The hazard of dissolution was higher among the Lebou men and in some extent higher among the Wolof men than among other groups.

Though the place of residence does not act as intermediate variable, it remains a key factor for union stability. Ethnic differences regarding age at first union exist in Senegal, but, the age at first union does not neither shape union instability, nor mediate ethnic differences in union dissolution. Hazard regression adjusted for all studies variables (potential intermediate variables and control variables) revealed ethnicity differences in union dissolution especially among men. However, despite the present study clarified some aspects regarding underlying mechanisms of action of ethnic variations in hazard of union dissolution, large-scale and more detailed data covering all Senegalese ethnic groups are needed for better understanding of the complexity and the persistence of domestic and matrimonial customs and traditions in matrimonial relationships.

REFERENCES

Adegoke, T. G. (2010). Socio-cultural factors as determinants of divorce rates among women of reproductive age in Ibadan Metropolis, Nigeria. *Stud Tribes Tribals, 8(2)*, p. 107-114.

Adjamagbo, A., Antoine, P., Toudéka, M. R., and Kpadonou, N. (2014). Mise en couple et devenir des unions: comparaison de deux capitales ouest-africaines, Cotonou et Lomé. *Papier présenté au XVIIIe Colloque International de l'AIDELF sur "Trajectoires et âges de la vie", Bari (Itly),* 26-29 Mai 2014, 25p.

Alam, N., Saha, S. K., and van Ginneken, K. J. (2000). Determinants of divorce in a traditional muslim community in Bangladesh. *Demographic Research, 3*(4).

Amato, P. R. (2010). Research on divorce: continuing trends and new developments. *Journal of Marriage and Family 72 (June 2010): 650-666.*

Bernardi, F., Härkönen, J., Boertien, D., Rydell, L. A., Bastaits, K., and Mortelmans, D. (2013). Effects of family forms and dynamics on children's well-being and life chances: litterature review. Families and Societies working paper series.

Chae, S. (2011). Divorce, remarriage, and children's outcomes in rural Malawi. *Presented at the sixth African Population Conference.* Ouagadou, Burkina Faso.

Clark, S., and Brauner-Otto, S. (2015). *Divorce in Sub-Saharan Africa: Are Unions Becoming More Stable?* Paper presented at the Population Association of America, 2015.