The diversity of pathways to adulthood: a life course typologies approach

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The sociology of youth has attracted relatively belated interest in the field of French sociology. Nonetheless, the evolution of familial and educational structures has gradually imposed the construction of a new category of individuals: "young people". This hazily outlined category which contains a great heterogeneity has often been tackled through pathways to adulthood. Youth is represented as a transitional period between childhood and adulthood. The transition proceeds in different spheres, one is familial and matrimonial, the other is educational and occupational. This approach introduces the idea of thresholds: for example decohabitation or life in a couple for the first sphere, end of schooling or employment for the second one.

From a practical view, the notion of threshold presents the advantage of allowing a relatively easy comparison between the different forms of transition to adulthood in time or space, once the events to be taken into account have been determined. In this way, the postponement of access to independence is linked to prolonged education and to a later entry into working life. A transitional age thus appears between the end of adolescence and the entry into adulthood. This age is seen as a period of progressive preparation for adult roles. More generally, western countries are witnessing the simultaneous development of standardization of pathways to adulthood, with an increasing compactness of thresholds ages, and their individualization, with an increasingly diverse order of thresholds (Shanahan, 2000). This reflects the modernization of societies, through the changes on the labour market, the growing role of State or the expansion of the education system.

Nevertheless, the study of thresholds presents a few limits. First it conceals the reversibility of some situations or the fact that events may never be experienced by individuals, as well as the difficulty of clearly bounding the definition of an event. For example, leaving the parental home is an increasingly complex process (Goldscheider, 1993; Villeneuve-Gokalp, 1997). The transition to total residential independence is gradual. As a consequence of prolonged education and the delay in entering a stable job and attaining financial independence, new residential situations are developing, such as dual-residence. Young people also often return to the parental nest: they're sometimes called "boomerang kids" (Mitchell, 2006). The distinction between leaving home and living away from home (Buck, Scott, 1993) or between decohabitation, autonomy and independence raises the problem of marker definition.

Moreover, the study of thresholds barely apprehends the link between educational-occupational and conjugal-parental spheres. The methods traditionally used, such as median age calculation or event-history models, allow to study the timing of threshold crossing and their predictors. But they generally focus on the simultaneous analysis of one or two events. And yet, research has shown that threshold predictors are linked to the order in which the events happen (Marini, 1984; Rindfuss, 1987; Kiernan, 1991). The existence of a normative order of events is sometimes even postulated (Elder, 1974), and convergence to this norm and its consequences on the life cycle can then be measured (Hogan, 1978). So it seems necessary to adopt a holistic view, which considers a trajectory as a whole, as a meaningful conceptual unit (Billari, 2001). The pathway to adulthood is thus characterized by a sequence of events, which can be analyzed using specific techniques, such as optimal matching analysis.

Lastly, the study of thresholds produces aggregated results, partially hiding the heterogeneity of individual pathways to adulthood. Is the change in age at the different events marking the trajectory the result of a weakening or on the contrary of a strengthening of certain forms of pathways to adulthood ?

The purpose of this study is to overstep these limitations by tackling the question of pathways to adulthood through an original approach: trajectory typologies. From the biographical data of the *Jeunes et carrières* survey (1997), individual trajectories are built as sequences of states integrating residential, familial and occupational situations, then grouped together according to their degree of
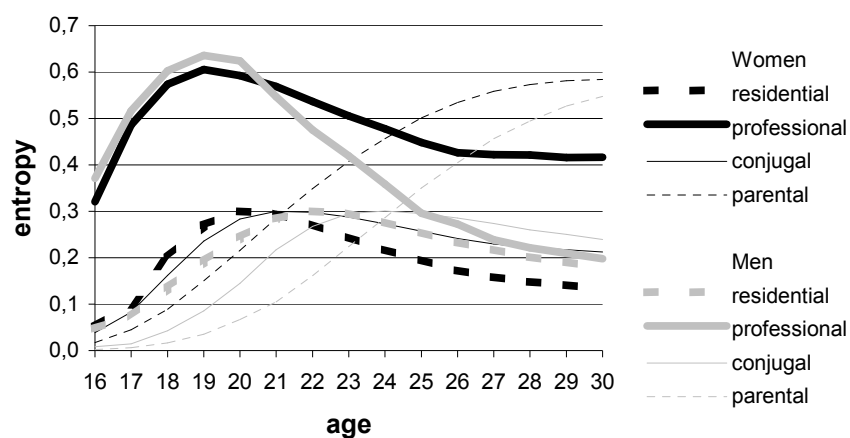
similarity using optimal matching analysis techniques: the trajectory typology produced constitutes an analysis tool allowing us to take into account the full range of situations (uncompleted events, reversibility, etc...) and to shed new light on the heterogeneity of pathways to adulthood and their evolution.

Data

The *Familles et employeurs* survey carried out by INED and INSEE in 2004-2005 examined the work-life balance. Its purpose was to describe how family and working life are reconciled. It involved 9,745 men and women aged 20-49 and their employers in metropolitan France. Only the data from the *Families* section are used here. It comprises a calendar of information about residential, familial and occupational history. We focus on the trajectories between ages 16 and 30 of individuals aged at least 30 at the time of the survey. The calendar covers the first year individuals lived in accommodation paid for by themselves or by their employer. With regard to familial events, the survey covered forming into a couple, marriage and separation years. Furthermore, the birth year of children is known. Finally, respondents mentioned each start and end year during which they spent 6 months or more as: student; in training school; doing national service; vocational training; unemployed and continuously looking for a job; in short jobs alternating with unemployment periods; in jobs lasting more than 6 months; in another situation (inactive, homemaker...).

The homogeneity of the distribution of individuals between the different states varies along the trajectory but also according to nature of the trajectory and individual's sex. To give an account of that, one can use a heterogeneity index, such as Theil entropy (Fussell, 2006). The occupational trajectory is the most scattered at the age of 16 (Graph 1). Dispersion increases up to the age of 19 whatever the sex, due to the end of schooling and entry into the labour market. Then it decreases, in a less pronounced way for women because of a higher inactivity rate. Regarding the other types of trajectory, almost all individuals are in the same situation at the age of 16: they've never lived in an independent accommodation, they are single and are childless. Then dispersion increases, up to the age of 30 for the parental trajectory, whereas residential and conjugal ones reach a maximum before returning to a lower level. The majority of respondents have ever lived in an independent accommodation and live in a couple at the end of their trajectory. The maximal dispersion is reached earlier in the residential field than in the conjugal one. Finally, dispersion always increases earlier for women than for men.

Graph 1 : Entropy of trajectories by age and sex

Method

Optimal Matching Analysis is based on a set of dynamic algorithms mainly used in molecular biology to analyse similarities of DNA strings. It was introduced into the field of social sciences by

Andrew Abbott in the 1980's (Abbott & Forrest, 1986). Its principle is based on the notion of similarities between pairs of sequences. The main idea consists in measuring the dissimilarity between two sequences by calcuting the cost of the transformation of one sequence into the other. Optimal matching of each pair of sequences leads to the creation of a distance matrix, that can be used afterwards to put together sequences according to their degree of similarity, using clustering methods for example, and to obtain a typology.

We are interested in multiple trajectories: residential, conjugal, parental and occupational trajectories. From a methodogical point of view, there is a choice between two alternatives. A first strategy consists in building a synthetic variable crossing the different characteristics (Abbott & Hrycak, 1990; Blair-Loy, 1999; Stovel et al, 1996). However, the variable created this way would have 2*2*4*8=128 states, which would quickly be difficult to use. The second strategy, which we chose, consists in first using Optimal Matching to calculate 4 distance matrices (one for each trajectory) and then combining these matrices into one by means of linear combination (Han & Moen, 1999; Blanchard, 2005).

Results

Women's and men's matrices are submitted to Hierarchical Clustering Analysis. 5 class typologies are adopted which respectively explain 63% and 67% of the trajectory variance.

The typology of women's trajectories comprises 5 distinct classes with very uneven sizes. Women from the main class (W1; 36%) are characterized by their precocity, while women from the second class (W2; 28%) have the same kind of trajectories but delayed. The third class (W3; 23%) comprises women who mainly distinguish themselves by a short duration of life in a couple and a low fertility. The fourth class (W4; 8%) is the most homogeneous and the most different from the others. It comprises women who have predominantly never experienced independent accommodation, life in a couple or childbirth, or at a very late age. The dominant feature of the last class (W5; 4%) is the fact that almost all women in it have never lived in independent accommodation.

Although classes from different typologies are not strictly comparable, the 5 classes in the men's typology shows patterns which seem quite close to the women's typology. However, delays can be observed, in particular as men experience independent accommodation, life in a couple and parenthood later than women.

These typologies can be summarized by presenting "typical trajectories", i.e. paragon trajectories for each class[1] (Table 1).

Table 1 : Classes of typical trajectories in the women's and men's typologies

typology	class	%	independent accommodation	life in a couple	1st child	2nd child	> 6 months job	inactivity	military service
Women	W1	36	19	19	22	26	17	26-28	-
	W2	28	22	22	27	-	21	-	-
	W3	23	22	28	-	-	22	-	-
	W4	8	-	-	-	-	21	-	-
	W5	4	-	21	25	29	22	-	-
Men	M1	35	21	22	24	28	19	-	-
	M2	27	24	26	29	-	22	-	21
	M3	18	20	26	-	-	20	-	-
	M4	14	-	-	-	-	19	-	-
	M5	5	-	24	27	30	19	-	-

reading : *The woman who is the parangon of the first class left school at 17 to get a stable job. She leaves to independent accommodation and lives in a couple at 19. She has a first child at 22 and a second one at 26 and then she stops working for two years. data:* Familles et employeurs *(2004)*

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[1] A paragon is the individual who is the closest to the class center.

The distribution between classes is relatively similar for women and men. The main difference resides in the fact that women are proportionally more numerous in the class of individuals characterized by a short duration of life in a couple and a low fertility (W3 and M3 classes) and that men are proportionally more numerous in the class of individuals who have never experienced independent accommodation, life in a couple or parenthood, or at a very late age (W4 and M4 classes). But once again, it's important to note that strict comparisons of typologies created from distinct populations have to be considered cautiously.

We will now focus on changes in the relative importance of the different forms of pathways to adulthood. Female and male distributions between classes according to birth cohort will then be examined. Four cohorts are distinguished: 1952-1955, 1956-1959, 1960-1963 and 1964-1967. Women's and men's results seem relatively similar. The size of the W1 and M1 classes decreases rapidly and continuously. On the other hand, the W2 and M2 classes increase in size, but only for the last cohort. The W3 and M3 classes grow substantially for all cohorts, as do W4 and M4 (but to a lesser extent for W4). The W5 and M5 classes remain relatively stable. So it seems that W2 and W3 classes are substituting to W1 for women and H2, H3 and H4 to H1 for men. Pathways to adulthood characterized by precocity in the different spheres of the trajectory are gradually replaced by other pathways to adulthood which are more delayed.

Discussion

A few avenues of research remain open to explore this subject in greater depth.

To start with, the survey only collects data on the first year that respondents live in accommodation paid for by themselves or by their employer. Periods during which they decohabitated in accommodation paid for by parents are unknown, as well as possible returns to the parental nest. Nevertheless these dimensions play a major role in the transformation of pathways to adulthood. To study these transformations would require more precise data.

Next, respondents sometimes report several activities in the same year. This is the case for students who are also in paid employment for instance. Yet their financial independence with respect to their parents is part of their quest for autonomy and gives them a particular place among students (Cicchelli & Erlich, 2000). So it would be interesting to take into account multiple activities in trajectory coding.

The question of the choice of markers is central to this study of pathways to adulthood. With the evolution of western societies, traditional markers are becoming less relevantFurthermore, Arnett (2001) introduces the notion of emerging adulthood, which is a period of the life course stretching from adolescence to adulthood. In this context, young people identify individualistic indicators of maturity as the new markers of adulthood and demographic markers are considered of secondary importance. It therefore seems essential to test the relevance of new markers, factual or linked to a subjective and individual assessment of the life course. It's also possible to combine traditional marker analysis with more qualitative data describing actual experience and perceptions (Tichit & Lelièvre, 2006). However, the few studies dealing with this subject show that traditional markers are still significantly linked to the feeling of being an adult (Shanahan et al, 2005).

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