

**Nathalie Bulle, « The actuality of *Education, Opportunity and Social Inequality* »**

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## **The actuality of *Education, Opportunity and Social Inequality***

*Education, Opportunity and Social Inequality* was hailed in the scientific community as a milestone work of scientific sociology, the most important to appear, perhaps, since Durkheim's *Suicide*<sup>1</sup>. In the book, Boudon (1973) illustrates in a masterful way his conception of sociology as dedicated to the explanation of social phenomena that present themselves to the analyst as mysteries to be solved, by implementing the principles of methodological individualism. First, the theme of the work is illustrated by a paradox, the one attributed to "Anderson" (in reference to an article from 1961), according to which the strong influence of one's level of education upon social status does not entail *ipso facto* an influence of one's level of education upon social mobility<sup>2</sup>. Second, Boudon's explanation sheds light upon sociological processes that underlie observed statistical tendencies, by accounting for unintended consequences, composition effects or also emergent effects, of voluntary individual actions. Third, in connection with the discovery of generative mechanisms, the method demonstrated the explanatory force of the rational concept of the actor, according to which the forces that really produce phenomena are rooted in individual logics of action, and not in determinate logics operating at the level of social structures. By demonstrating that the effects arising from decisions about schooling have the greatest impact on inequality of educational opportunities, and that inequality of social opportunity is not simply an effect of inequality of educational opportunities, Boudon was as we know standing in opposition to functionalist interpretations in their neo-Marxist version which at that time dominated the field of sociology. These interpretations placed the emphasis on the different chances of educational achievement according to social origin in order to account for the phenomenon of "reproduction" of social statuses, suggesting that there was an unconscious alliance between dominant groups and the cultural norms of educational institutions.

Despite the scientific importance of these results, the democratization of educational systems continued to be thought of in terms of reforming the culture and knowledge transmitted at school,<sup>3</sup> which generated numerous undesirable effects. We offer here an original analysis of the robustness of Boudon's demonstration, which testifies to the durability of its foundation, as well as to the unaltered timeliness of its teachings.

### **The inequality of educational opportunities**

The explanatory core of the first part (devoted to inequalities in educational opportunities) of Boudon's model centers around a particular phenomenon of amplification. As one progresses through a school system, situations of choice are repeated in which a same structure of inequality operates. This structure involves three variables, two explanatory<sup>4</sup> (educational achievement and social origin)

and an explained variable, the choice to pursue one's studies along the "noble" path of the educational system. There is interaction between these three variables because decisions to pursue schooling along the privileged path are more dependent on academic achievement to the extent that social origin is lower. This structure of interaction indicates inequality that is far less ample than the observable effects following a series of iterations that correspond to choices made at different forks in the road along the path of schooling. The model thus enables us to take the full measure of Pitirim Sorokin's statement that the family, as an agency of orientation, contributes to the sorting of individuals.

Differences in relative student performance show up at an early age and are assumed to continue on from one grade to the next. For the purposes of the model, individuals are characterized by their educational achievement level (R1, R2 or R3) and by their socioeconomic status of origin (C1, C2 or C3). For those in C1, 60% have an achievement level of R1, 30% of R2 and 10% R3. For those in C2, 50% have an achievement level of R1, 30% R2 and 20% R3. For those in C3, 30% have an achievement level of R1, 40% R2 and 30% R3. At each fork in the school system, there are two possible paths that correspond to unequally desirable expectations in terms of socioeconomic status. Rates of access to the higher path increase with social status and are less sensitive to educational achievement as social status climbs. The rates used are respectively 0.86, 0.75 and 0.65 for class C1 according to levels of achievement R1, R2 and R3; they are 0.70, 0.60 and 0.40 for C2; and 0.60, 0.40 and 0.20 for C3.

For each social category, according to academic achievement, there is a corresponding probability of leaving school at a fork ( $n + 1$ ) in the school system (which hypothetically contains 8 forks in all). This probability is equal to the probability of continuing at each of the first  $n$  stages and stopping at  $n + 1$ :  $p^n \times (1-p)$  with  $0 < n < 7$

The probability  $p_{n+1}$  of any given child in socioeconomic category 1 (distributed into the 3 academic levels) stopping at level  $n + 1$  is therefore:

$$p_{n+1} = 0,60 \times 0,85^n \times (1-0,85) + 0,30 \times 0,75^n \times (1-0,75) + 0,10 \times 0,65^n \times (1-0,65)$$

The inequality affecting educational decisions (effect of the interaction between origin, achievement and decisions) has a greater impact on educational inequality than the inequality of achievement as a function of social origin. The first has multiplicative effects on inequality of opportunity (measured as the rate of access to a specific level of education), whereas the second has simple effects. This finding appears in the calculation of the rate of access of individuals in C1 to the educational level ( $n+1$ ) shown in detail above (in calculation of  $p_{n+1}$ ). While the rates corresponding to the distribution of individuals from this social background over the three levels of achievement are raised to the power of one in  $p_{n+1}$ , the rates corresponding to the results of the interaction between origin, achievement and educational decision are raised to the power of "n" in  $p_{n+1}$ <sup>5</sup>.

We note that a large part of the critiques of Boudon's model rests on a particular interpretation of the relative weight of the effects whose impact the model measures. They associate the relative effect of decisions *vs.* achievements in the model with the relative effects of economic levels *vs.* cultural levels of families in reality. But no formal hypothesis separates *a priori* the respective roles of economic inequalities and inequalities grounded in cultural differences as regards career-path decisions. Thus these critics do not affect the explanatory core of the model. In fact, in *formal* terms, the model analyzes the respective effects of *decisions* (which involve the situations of actors, and thus positions and dispositions: economic level, educational level, cultural particularities, etc.) and relative level of achievement (defined intrinsically, that is, in relation to a stable reference mark, and supposed to be revealed in primary school) regarding access to higher levels of the stratified school system. The robustness of these conclusions can be put to the test. To this end, we propose a thought experiment. The point is to account more precisely for mechanisms in which certain explanatory factors intervene, in order to verify that a realistic development of the model, in an explanatory sense, does not invalidate the conclusions that are derived.

The hypothesis of a continuance throughout schooling of relative achievement levels defined in terms of three original levels, while a simplification, is robust. It should be subjected to critical examination only if the existence of exchanges of individuals between these levels had consequences for the conclusions deduced from the model. But such exchanges are necessarily marginal because the levels of achievement used are very general.<sup>6</sup>

On another hand we could question the hypothesis of a stable identification of levels of achievement whose subjective meaning diminishes to the extent that selections from one level to another along schooling paths are made.<sup>7</sup> From this perspective, we propose the following development.

Suppose that individuals' achievement is measured on a continuous scale that lets us rank the entire population concerned. The division of achievement into three levels  $R_01$ ,  $R_02$ ,  $R_03$  at the "0" stage of school careers would lead us back to the hypotheses of the model. But to account for subjective situations of decision, we can define three new relative levels  $R_i1$ ,  $R_i2$ ,  $R_i3$  when a cohort of students moves up from one school level "i-1" to another, "i". In other words, as selections are made, the identification of relative achievement levels will be more precise and can be based on a division into numerically comparable parts of the school population that reaches higher levels. The differences in decisions made by families will thus apply at every stage to this more detailed objectification of the relative achievement levels of students. With regard to the basic model, a certain number of individuals from the different social categories identified at level  $R_01$  of achievement are identified at the  $R_i2$  level at the  $i^c$  fork, while a certain number who were identified at level  $R_02$  are then identified at level  $R_i3$ . We should add that relative levels of achievement in terms of a fixed reference mark at the stage 0 are still assumed to be constant over time. The positions that are specified here and distributed progressively over different levels correspond to finer differentiations of relative school

performance, not to a redistribution of these performances. This actualization of relative levels makes it necessary to translate downward the relative levels identified, as selections are made. Consequently, to obtain a progressive “selection” of the school population comparable to that of the basic model and conforming to empirical observations, one must for example increase the rate of individuals whose levels of achievement are the highest, R1 and R2, pursuing along the privileged path, while keeping approximately the same structure of interaction between origins, achievement and decisions.

Another realistic development of the model, with regard to explanation, would consist in supposing that the relative achievement levels of individuals from different categories are not distributed in a completely aleatory manner within the levels defined at the beginning, R<sub>01</sub>, R<sub>02</sub> and R<sub>03</sub>. The existence of a latent classification, which would for example be unfavorable to individuals coming from C3, would signify with regard to the preceding hypothesis a weakening of the interaction between origins, achievement (defined more precisely) and scholastic decisions.

These developments of the model would lead to the same conclusions as the basic model, but only the latter allows us to evaluate the effects, respectively, of difference in achievement defined in relation to an intrinsic reference mark, and of differences in decisions. It offers an uncluttered form of formalization of the factors in play, and this is in accordance with the very objectives of explanation.

#### *Changes in survival rates in the expanding educational system*

In order to simulate changes in rates of school attendance, Boudon assumes two hypotheses: (1) from one period  $t$  to a later period, for example  $t+k$ , for each student, the probabilities of choosing a relatively more desirable path at a given fork tend to increase, all other things being equal; (2) still, the increase in this probability, between  $t$  and  $t+k$  is all the weaker to the extent that this probability is higher at the first period  $t$ .

From one period of time to the next, the rise in the opportunities for the survival of all of the children enrolled in school as a function of achievement level and socioeconomic background (probability of  $P$  at time  $t$ ) is expressed by the following function:

$$P_{t+1} = P_t + (1-P_t) \times a \text{ with } 0 < a < 1: a = 0.1 \text{ in the model}$$

The formula for changes in the survival rates proposed in the model expresses in general terms a diminution over time of the inequality of opportunities for access to various levels of the educational system. From  $t_0$  to  $t_3$  the rates of access to levels of education increase proportionally all the more, to the extent that the category of origin is at a lower level in the social stratification. Nonetheless the absolute increase of rates of access to the higher levels S1, S2 and S3 is all the greater, to the extent that the category of origin is at a higher level in the social stratification (these comparisons can be made using Table 1).

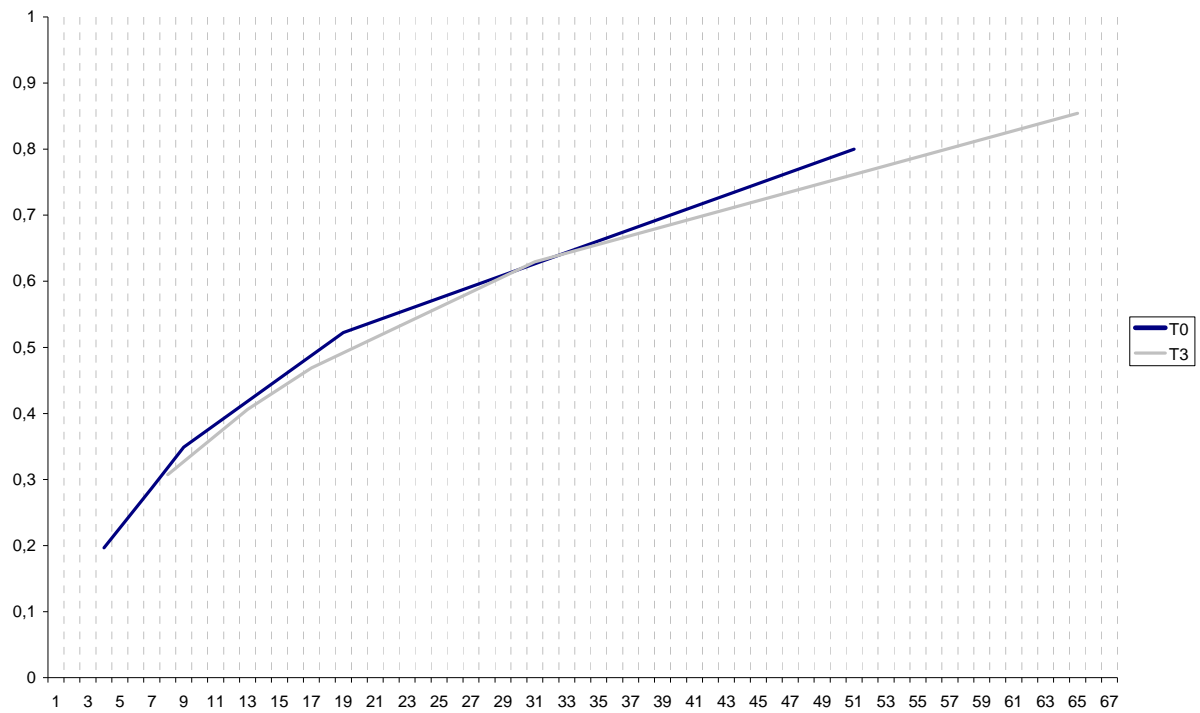
Table 1 – Rates of access to different levels of the educational system as a function of social origin, in the time periods t1 and t3

<i>Rates of access</i>	<i>C1</i>		<i>C2</i>		<i>C3</i>	
	t <sub>0</sub>	t <sub>3</sub>	t <sub>0</sub>	t <sub>3</sub>	t <sub>0</sub>	t <sub>3</sub>
S1	0.20	0.31	0.03	0.09	0.005	0.02
S2	0.29	0.41	0.07	0.16	0.02	0.05
S3	0.35	0.47	0.11	0.21	0.03	0.08
S4	0.52	0.63	0.25	0.38	0.09	0.20
S5	0.80	0.85	0.61	0.71	0.40	0.56
S6	1	1	1	1	1	1

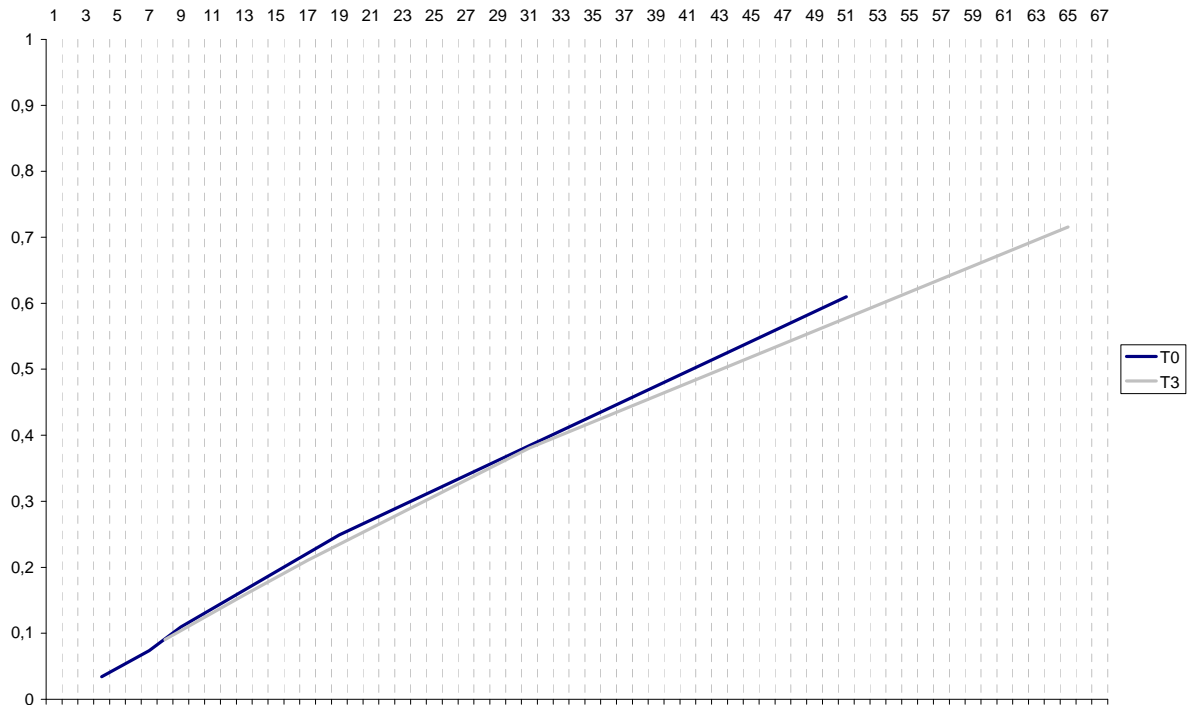
*Analysis of intrinsic inequality with regard to selection*

In order to understand more precisely what is happening, it is interesting to compare, from one period to another, rates of access for individuals from different social backgrounds to numerically fixed subgroups of the school population ranked according to decreasing educational opportunities, defined for example by deciles or centiles. It is possible to make this comparison by extrapolating the measured values of rates of access to the various educative levels. From one time period to another, we can then make same cutting points on the whole distribution of opportunities (identified for instance by centiles). Each of these cutting points divides two subgroups within the school population: the n% with the highest opportunities and the (100-n)% with the lowest opportunities. What is interesting, therefore, and what gives us the key to the changes illustrated by the model is that, for each of these potential cutting points, rates of individuals from various origins accessing to the first subgroup (with highest opportunities) do not perceptibly vary from one time period to another. Graphs 1 to 3, based on known values and extrapolating simply the unknown values of rates, illustrate this observation. They show that if the distribution of the school population at the various levels of the schooling system changes a great deal, the distributions of individuals from different social categories in a fixed reference mark of relative opportunity show, in contrast, almost no variation.

Graph 1- Access rates to the top centiles<sup>1</sup> of the school population in periods t0 and t3, extrapolated values – Cat. C1

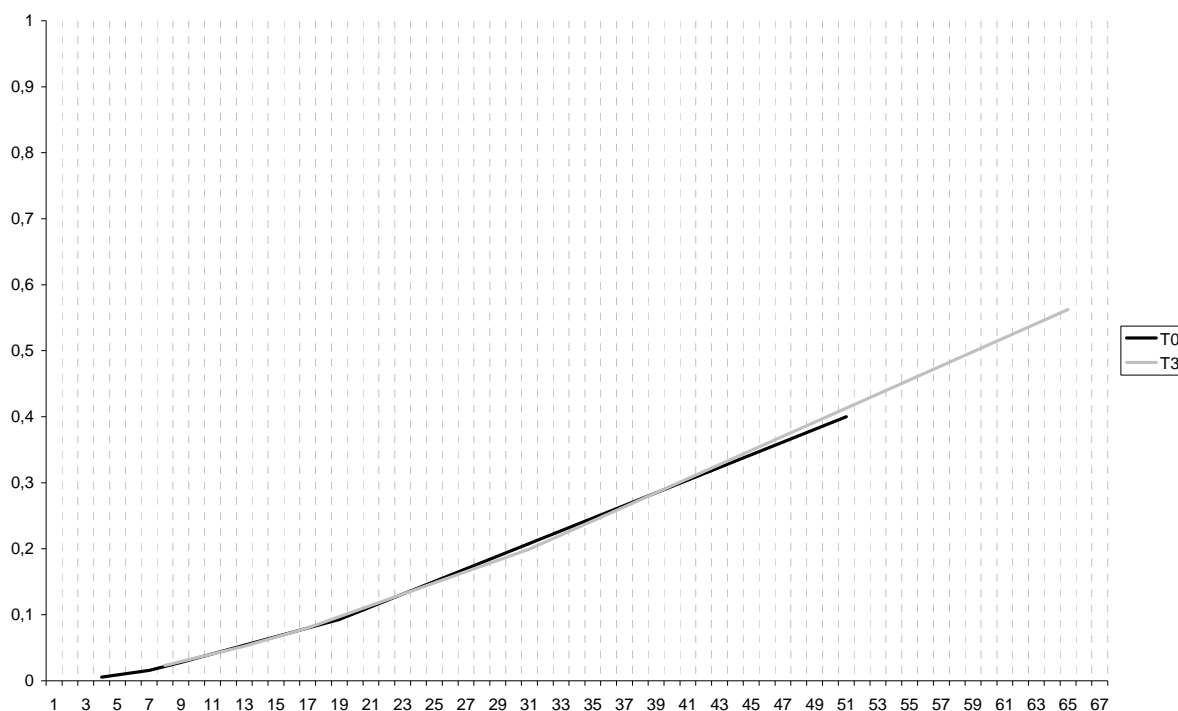


Graph 2- Access rates to the top centiles of the school population in periods t0 and t3, extrapolated values – Cat. C2



<sup>1</sup> 1 in abscissa corresponds to the percent of population with the highest opportunities.

Graph 3- Access rates to the top centiles of the school population in periods t0 and t3, extrapolated values – Cat. C3



Intrinsic inequality with regard to educational opportunity thus remains stable overall, whereas objective chances increase and their inequality tends globally to lessen.

*Interpretation of the relative stability of intrinsic educational opportunity*

In general terms, the most recent analyses of inequality of educational opportunity<sup>8</sup> show, in conformity with the results of simulation offered by Boudon’s model illustrated above on graphs 1 to 3, that the movement toward democratization of educational systems has tended to develop, *while inequality of relative opportunities for individuals from different categories has remained constant*. This movement gives the appearance of being uniform, even if the definition of the concept of uniform democratization varies by individual analysis. What this concept involves can precisely be defined in our view by the stability of inequality measured in a fixed reference mark of relative opportunity, such as deciles or centiles. This uniformity of the movement of democratization is on the whole confirmed in the case of the French educational system.<sup>9</sup> The distribution of intrinsic opportunities for individuals from various social origins thus shows a high degree of inertia.

In order to explain this phenomenon, it is necessary to understand the ambivalence of the effects of policies of democratization. The factors that influence individual situations in fact tend to neutralize each other’s impact. For example, the increased importance of education in the job market has led to a general increase in the amount of investment in education by families, which has tended to

counterbalance the effects of a decrease in the relative costs of education. Next, easier access to courses of study that once were more selective diminishes the relative influence of scholastic achievement, but it also diminishes the influence of the educational institution on individual motivation, leaving more latitude for the potential influence of situational differences as a function of socio-cultural milieu. Finally, socio-economic backgrounds have less of an effect on the vertical differentiation of schooling decisions (access to the higher levels of the system), but the increased importance of the horizontal decisions (linked to choices of geographical area, of school, of curriculum, of various educational strategies, etc.) gives the advantage, as a great number of studies have shown, to knowledge of the educational system and to level of education of families. These factors still operate with regard to schooling decisions.

Boudon's model is thus remarkably faithful to reality, in its explanatory power, and in its descriptive power, which associates the increase in objective opportunities, and in general the diminution of inequality with regard to these opportunities, with stability of intrinsic educational opportunities. This stability, however, is not thereby rendered ineluctable, but there is every chance that it will go along with the movement of "quantitative" democratization of the educational system. Intrinsic educational opportunities behave in general according to a completely different logic, which the first part of Boudon's model helps clarify.

### **Inequality of social opportunity**

*Education, Opportunity and Social Inequality* appeared in the context of a crisis in the sociology of social mobility triggered by the empirical analyses of Lipset and Bendix (1959). These analyses, carried out in a large number of countries, tended to show the comparability of the overall pattern of social mobility in Western industrial societies.<sup>10</sup> They undermined the belief, widely held at that time, in a relation linking the differences between industrial societies, in terms of political, economic or cultural value systems, as in terms of development, and social mobility. In the same way, further analysis challenged the belief in the effect of expansion of educational systems on social mobility.

Boudon's model reveals the general mechanisms responsible for the counter-intuitive phenomenon observed: the relative independence between opportunities in school and social opportunities. His results can be formulated in the following way: the reduction in inequality of educational opportunities is not accompanied *ipso facto* by a reduction in inequality of social opportunity, in a context in which changes in socioprofessional distribution are not congruent with changes in the distribution of educational opportunities.

### *Modeling the distribution of social opportunities*

The major hypotheses relative to the process whereby inequality of social opportunity is generated in the model are as follows. We are only dealing with the strictly meritocratic version of the model, or in other words, allocation of social destinations depends mainly on social structure and educational level attained, without social origin intervening to influence anew social chances by means of a “dominance effect”:

1. The inequality of opportunity of access to different levels of the educational system tends overall to diminish as the system expands;
2. Intrinsic distributions of educational opportunities for individuals from different social categories remain relatively stable over the educational system’s expansion;
3. Inequality of social opportunity is inferior to inequality of educational opportunity. The “degree of privilege” due to educational level weakens the strictly meritocratic nature of the allocation of social positions, and its value is fixed at 0.7.<sup>11</sup>
4. The social structure (distribution of available social status) changes less rapidly than the educational structure (distribution of schooling)<sup>12</sup>. The gap between changes in the distribution of levels of schooling and changes in socioprofessional positions is expressed in the model by the stability of the second.

Hypothesis (1) has no explanatory role. It only expresses what the observed data show, based on different measures of inequality of opportunity which tend to vary positively, all things equal, with an opening up of the highest educational levels.

The allocation of social positions depends on hypotheses (2), (3), and (4) preceding, which allow a synthesis of the process set in motion in the model to that effect: distributions of opportunities defined in a fixed reference mark of relative opportunity, educational structure, social structure, quasi-meritocratic hypothesis. The fundamental phenomenon explained by the model is summed up by the following proposition according to which, in a general manner, the large increase in rates of school attendance and the democratization of education neither imply that mobility must increase, nor that its structure would be modified over time.

Hypothesis (3), which weakens the connection between intrinsic educational opportunity and intrinsic social opportunity, does not imply a particular process. At time period  $t_3$ , the rate of access to the top ten percents of the educational stratification for individuals coming from C3 is about 4%. The rate of access for the same individuals to social status C1, which represents the top ten percents of the social stratification, is slightly higher: 5%. The formal and purely descriptive process that simulates this increase does not affect the phenomenon highlighted by the model.<sup>13</sup>

The assumption of stability of social structure in hypothesis (4) allows us to study inequality of social opportunity in a fixed reference mark.

It appears that hypothesis (2) gives us the key to the phenomenon explained by the model. In fact, the quasi-meritocratic process of assigning social positions distributes the highest levels of the social stratification to the individuals of the population that rank highest in level of education. According to hypothesis (2), relative educational opportunities, with regard to a fixed reference mark, remain largely unchanged. The levels of education attained, which are based on these relative opportunities, have indeed changed (see Tables 1 and 3). Nonetheless the educational stratification differentiates relative ranks with sufficient precision at the highest levels, such that the results of the process of allocation of social positions as a function of educational levels coincides approximately with the results given by intrinsic distribution of educational opportunities (illustrated by Graphs 1 – 3). In sum, the displacement of the educational stratification in the sense of more accessibility at higher levels has practically no effect on the results of the allocation of social positions in a stable social structure (see Tables 4 and 5).

Table 2 – Distribution of individuals according to different educational levels and social origins at time period t0

t0 <i>Educational level</i>	<i>Origins</i>			%
	C1	C2	C3	
1	1967	1020	318	3,3
2	905	1188	624	2,7
3	618	1074	714	2,4
4	1735	4191	3918	9,8
5	2775	10827	18432	32,0
6	2000	11700	36000	49,7
	10000	30000	60006	100,0

Table 3 - Distribution of individuals according to different educational levels and social origins in the period t3

t3 <i>Educational level</i>	<i>Origins</i>			%
	C1	C2	C3	
1	3070	2715	1398	7,2
2	992	2025	1734	4,8
3	626	1572	1662	3,9
4	1604	5112	7188	13,9
5	2249	10050	21780	34,1
6	1458	8529	26244	36,2
	9999	30003	60006	100,0

Table 4 – Results for social mobility at time t0

t0 Destinations	Origins			
	C1	C2	C3	
C1	3039	3900	3060	10000
C2	3291	9942	16770	30000
C3	3670	16161	40170	60000
	10000	30003	60000	100000

Table 5 – Results for social mobility at time t3

t3 Destinations	Origins			
	C1	C2	C3	
C1	3080	3957	2964	10000
C2	3194	9720	17088	30000
C3	3726	16326	39948	60000
	10000	30003	60000	100000

### *Independence of social mobility with educational democratization*

In a near-meritocratic system, the quasi-stability of intrinsic educational opportunities results in a quasi-stability of intrinsic social opportunities (distributions of social opportunities in a fixed reference mark of relative opportunities). From there, the shift in educational distribution (rate of access to the different levels of the system) leads to a lowering of inequality of educational opportunity that is not linked to a lowering of the inequality of social opportunity if the social structure remains unchanged. Alternatively, even if intrinsic educational opportunities remain stable, a shift in the social structure may lead to a lowering of the inequality of social opportunities. Boudon shows the independence of the two phenomena (insofar as the shift in the educational structure has an endogenous dynamic and is not associated with a shift in the social structure). And that is what the available international data show: the considerable rise in rates of school enrollment and the democratization of educational opportunities characteristic of liberal industrial societies appear incapable of modifying the social-mobility structure. Insofar as differences can be observed between countries in terms of mobility, they result from differences in the changes characterizing the social structure rather than from the development or degree of democratization of the school system.

The mathematical form and the parameters chosen for the process of survival in the educational system have a descriptive status, of course. The relative stability of distribution of intrinsic educational opportunities that is the result, itself has a fundamental role in explanation. This relative stability expresses the results of processes observed in reality. It is not an artifact of the model; observed data led to its constitution. Boudon notes that he has conceived the model so that its use takes place at a level congruent with available data. The important structural changes that have occurred in the educational system since the early 1970s still leave room to suppose that the intrinsic distribution of educational opportunity has undergone a number of transformations in France, especially as regards

the increased integration of the system, making higher education a natural extension of secondary education. But a diminution of the inequality of intrinsic educational opportunities, if it existed, would entail a diminution of intrinsic social opportunities only if all other things remained equal. The process of social selection, however, does not depend exclusively on the process of educational selection, and effects of “dominance” (expressing the effects of social privileges over and above the effects of educational privileges) can operate, diminishing or increasing in connection with the very role played by schooling in social selection. The hypothesis of a quasi-meritocracy globally links the inequality of intrinsic educational opportunities to the inequality of intrinsic social opportunities. This cannot be modeled by a completely stable process over the long term.

### *The impasse regarding analyses of social mobility*

The observations made by Lipset and Bendix tend to be confirmed on the basis of works that are intended to help one understand the qualitative differences in regimes of mobility, independently from national particularities in terms of socio-professional stratification. Most of the research on social mobility during the 1960s and 1970s was applied to the attempt to separate two types of mobility: one referred to as “structural” and the other as “exchange” or “circulation”-mobility,<sup>14</sup> identifying the part of social mobility that is not forced by changes in the distribution of socio-professional positions. These works nonetheless appear to have failed.<sup>15</sup> The dominant approach in sociology today as regards social mobility, introduced by Hauser (1975) uses log-linear models that are based on a calculation of relative rates of mobility: *odds ratios*.<sup>16</sup> These *odds ratios* offer a “margin insensitive” measurement of the force of ties of association between categories of origin and categories of destination<sup>17</sup> allowing inter-societal comparisons of these ties.

Industrial societies are said to present a fundamental similarity in terms of the very stable character of their internal regime of mobility. This is a version of the thesis of Hauser *et al.* (FJH), corroborated by numerous analyses, in particular those conducted by Erikson and Goldthorpe (1982, 1985, 1992). New results however tend to argue in favor of an absence of international convergence (Breen 2004), apart from the effects of certain structural developments that are practically completed today, linked to the decrease in the number of farmers. In the case of France, the hypothesis of a quasi-constant character of social fluidity<sup>18</sup> in the past has been challenged by Vallet (1999), who observes that the general level of social fluidity increased slowly but steadily in France from the beginning of the 1950s to the early 1980s.

The conceptual changes that analyses of social mobility have undergone with the introduction of log-linear models have nonetheless caused a shift in the focus of empirical research. *Odds ratios* do not allow for the evaluation of intrinsic openness of the process of allocation of social statuses in society. The associations that they permit to measure in fact depend on the process of social selection

and the availability of positions within the social stratification. None of the analyses cited previously allows the intrinsic openness of the process of social mobility to be evaluated, the very process Boudon grasps by hypothesizing an invariance of socioprofessional distribution over time.

Our own empirical analysis developed with regard to a fixed reference mark of relative social opportunities all confirm the strong stability of the intrinsic inequality of social opportunities among the French population for individuals born between 1900 and 1970<sup>19</sup>. It appears in fact that social mobility is essentially structural, that is, it is due to the opening up of the highest positions in the social stratification. *But everything happens as if children born in working-class families see their absolute positions improve along with economic growth, while their relative position remains unchanged.* Analysis of longitudinal data from the United States shows that the variation in inequality of opportunities in terms of social selection, when it exists, does not coincide with the major periods of the expansion of the American educational system.<sup>20</sup>

#### *For increased opportunities in life*

In conclusion, Boudon's model's extraordinarily solid explicative power still accounts for the effect of basic processes underlying the impact of factors outside schools on inequality of opportunity. It explains (1) why democratization of schooling through a lowering of academic standards does not reduce educational inequality and (2) why reduction of educational inequality through expansion of schooling does not lead to a weaker link between social background and social destinations.

Educational systems are easier to change than systems of stratification. But, according to Boudon, it is society rather than the schools that is to blame for unequal educational opportunities. A policy of reducing socioeconomic inequality would therefore probably be the most effective way to intrinsically reduce inequality of educational opportunity, since the latter appears to be due principally to the effects of social stratification, which accounts for a great part of the differences in decision-making situations. In order to diminish intrinsic educational opportunity inequality the point is also to throw light on choices<sup>21</sup> and not to diminish, as is too often the case, the cognitive and cultural function of schooling

Still, the explanation given by Boudon for Anderson's paradox does not justify pessimism, any more than comparison in this respect with the theory of social "reproduction". Overall, a reduction in the inequality of objective social opportunities is possible, but it *depends above all else on a rearrangement of the structure of society and a general rise in terms of the life opportunities associated with different social positions.* Here again it is society, rather than the school, which through its own developments can increase overall mobility. The educational system, though, still has a role to play. By raising the intrinsic level of education among the population, it participates in economic development and contributes to an increase in the life opportunities of everyone.

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## Notes

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<sup>1</sup> An excellent book, Morin (2006), offers indications concerning the reception and the impact of Boudon's works.

<sup>2</sup> Defined as the process by which individuals move from one stratum of society to another.

<sup>3</sup> On this, cf. Bulle (2009).

<sup>4</sup> This terminology is purely statistical. The structure of interaction in question corresponds to a basically descriptive hypothesis. The model does not attempt to account for processes that underlie this phenomenon of interaction between variables.

<sup>5</sup> The probability of finishing higher education for a student in C1 is equal to 0.1967, for a student in C2, 0.0340 and for a student in C3, 0.0053: students in the highest class are thirty-seven times more likely to obtain a graduate degree than those in the lowest class. For a given achievement level (e. g. R1, the highest), the probabilities are respectively 0.2725, 0.0576 and 0.0168, etc.

<sup>6</sup> Boudon identifies levels of relative performance of students with reference to a fixed reference mark. In other words, the representation of these levels in the total population is constant over time. Each eventual passage from one level to another on the part of an individual from a given social subgroup must be

balanced by circulation in the other direction on the part of an individual coming out of a different social subgroup. Such exchanges, which are marginal, are also limited by the representation of categories at different levels of achievement. Boudon notes the restriction implied by this axiom which supposes that schools cannot change a student's general relative level of achievement. This hypothesis nevertheless fits the findings of the empirical analyses that were carried out.

%	R1	R2	R3	
C1	6	3	1	10
C2	15	9	6	30
C3	18	24	18	60
	39	36	25	100

<sup>7</sup> The economists Goux and Maurin, (1995) in a critique of the model, proposed in this regard a development that gives a little more weight to relative achievement levels, independently of decisions. They suppose that all individuals who succeed the most get past the first forks in educational stratification, whatever their category of origin, while those who show the worst levels of achievement all fail to reach the highest levels. This hypothesis has the effect of weakening the role of interaction between the variables, social origins, achievement and decisions about schooling, at the two ends of a school career. The relative weight of differences between decisions and between achievement as regards the generation of inequality of educational opportunity thus turns out to be reduced slightly.

<sup>8</sup> Cf. Shavit & Blossfeld (1993).

<sup>9</sup> The inequality of the intrinsic distribution of educational opportunities for workers' children in France has varied little over time; *everything happens as if the children of workers had their absolute positions rise along with the expansion of the school system, without changing their relative position*. This proposition must nonetheless be nuanced somewhat. On one hand we observe a diminution of inequality of opportunities for access to higher levels of education for individuals who came through primary education after 1945; on another hand the inequality of the distribution of educational opportunities for daughters of workers went down over the period studied, though they started in an even more unequal situation relative to sons of workers at the beginning of the century. The results obtained show that these changes are not directly linked to the "quantitative" aspect of democratization. When it existed, the drop in the inequality of intrinsic educational opportunity was correlated with large changes undergone in terms of economic and institutional conditions that led to a functional continuity of primary education with secondary education, and the same kind of continuity between secondary and higher education. These qualitative variations can be explained by a narrowing of the differences between situations of scholastic decisions for individuals from various origins, including the situations of men and women. But intrinsic inequalities have tended to converge over the long term toward the level of opportunities for access at level IV (baccalaureate or equivalent) for sons of workers, a level that has remained relatively stable. Cf. Bulle (2009).

<sup>10</sup> This conclusion, in order to be valid from an international standpoint, was based on an analysis of the extent of intergenerational exchanges between aggregate categories: farm, manual, and non-manual categories.

<sup>11</sup> This means that if a given number of social positions is available at level Ck, the individuals at educational level S1 will receive 70% of these positions if the number is lower than the number of individuals at level S1. If the number is higher than the number of individuals at that level, 70% of the individuals at educational level S1 will receive positions at level Ck. A certain number of positions at level Ck will remain, and these, according to the same procedure, and as a function of the same parameter (0,7), will be given to individuals at educational level S2, etc.

<sup>12</sup> When the education demand is mainly determined by endogenous factors, we must expect a faster displacement of the educational structure. Thus, the structure of opportunity attached to each academic level changes over time.

<sup>13</sup> Its stability has the effect of relatively increasing the meritocratic character of the system (social opportunities associated with the highest strata of the intrinsic distribution of educational opportunities) to the extent that the highest levels of education themselves develop, which tends to correspond to reality.

<sup>14</sup> The notion of structural mobility sends us back to the change of status between fathers and sons that is forced by the differences of distributions of origins and social destinations in the population. The notion of exchange or circulation mobility involves changes that can be imputed to the intrinsic openness of the process of mobility in society.

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<sup>15</sup> When social opportunities are identified by social status (or social categories), one cannot control for structural changes without giving rise to insurmountable problems of interpretation stemming especially from the dissociation between a “free” mobility and a “constrained” mobility, and from associated methodological devices.

<sup>16</sup> *Odds ratios* measure here the chances individuals who come from one subgroup rather than another have of reaching one social position rather than another.

<sup>17</sup> i.e. distributions of social origins and social destinations in the population. Odd ratios are “margin insensitive” in a specific sense. It means that their value does not vary if we multiply either any row, or column of a basic mobility table by a constant term.

<sup>18</sup> Defined as intergenerational occupational mobility net of direct structural effects, i.e. effects of differences in the marginal distributions of the mobility tables.

<sup>19</sup> We did not take account of children of farmers

<sup>20</sup> These analyses, based in the case of France on surveys about Training and Professional Qualification conducted by INSEE in 1970, 1977, 1985, 1993 and 2003 will be the subject of a future publication.

<sup>21</sup> Cf. on this subject Boudon (2001)