Gianluca Manzo, *La spirale des inégalités. Choix scolaires en France et en Italie au XX siècle*. Presse de l'Universitè Paris-Sorbonne, 2009, 335 pp.

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In the sociological literature, the debate about the evolution of the structure of educational inequalities has been ignited, especially during the last twenty years, by an important methodological development and has been less concerned instead with an equally lively development of the theoretical framework. Reading the writings of the last few years, the bases of two model approaches to the reconstruction of educational transitions can be recognized that are very different when compared. They necessarily lead to two different visions of the stratification process which cannot be reconciled. Many think that the opposition between the epigones of the Mare derived models and the supporters of the non-Mare model could have significantly increased our knowledge level concerning the most recent transformations of the structure of educational inequalities.

In this context, Gianluca Manzo provides an original contribution, by a definite breakaway from the above mentioned debate, he tries a new way which allows to recover the integration between methodological issues and theoretical ones. In the introduction to the book, the author declares that his study aims to two main purposes: the first one regards the possibility of combining the refined description of the standard methods of statistical analysis with the possibilities offered by multi-agent simulation techniques which allow the empirical testing of very peculiar hypotheses about forms taken by educational stratification phenomena. As a consequence, the second purpose is that of analysing the interpretative contribution provided by several hypotheses in current literature and, at the same time, trying to make new ones. When following these two perspectives, the author makes a large use of Ockham's razor which could expose him to some accusations of partiality. But at the same time, the rhetorical structure of Manzo's reasoning seems to be very firm and well defined.

The volume is organized into three parts: the first one is devoted to the discussion of the epistemological foundations of the book's research, in the second one the characteristics of French and Italian educational institutional models are compared, and finally in the third one the author proposes the results of the empirical analysis of the two national systems, using both traditional standard statistics techniques and multi-agent simulation models.

The author starts from the necessity for contemporary sociology to overcome the model limits of variable sociology by exploring the social phenomena through the theoretical formalization of generative models. With this choice, the author accepts the suggestion of the epigones of Analytical Sociology. The author joins the ongoing debate and tries to organize the different positions and build a reasoned review. According to Manzo, the building of a generative model has to respect three fundamental logical steps:

a) it is important to clarify what are the cognitive purposes of the model;

b) it is important to define which is the theoretical form of the generative function of the model;

c) it is important to clarify which computational systems should be employed to empirically increase the model.

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By an analytical review of these three issues, the author deals with the necessity of using the descriptive statistics to identify macroregularities which form the explananda of the model. Besides, the author stresses the essential role of theoretical models and their translation into computational simulative mechanisms to understand the social mechanisms which are underneath these macroregularities.

Any generative model, Manzo asserts, should have the aim to clarify the modes of production of a given social phenomenon. The social mechanisms thus represent the bases for any generative model. So we can consider a generative model as a concatenation of different social mechanisms whose formalization requires the use of complex mathematical functions specifically developed to be consistent with the hypotheses proposed by the researcher. Manzo applies these epistemological principles to the research which is proposed in the volume. He compares the evolution of educative inequalities in France and in Italy, particularly during the last decade of the Twentieth century.

In order to clarify the theoretical and empirical starting point of his research program, he reads the evolution of the educational stratification dynamics in Italy and France in chiaroscuro with the main explicative theories proposed by sociological literature. The discussion of this point is organised in two different chapters: the first one is devoted to the transformations of the last decade, the second one aims to provide a more general analysis of the dynamics of inequalities in these two countries during the whole Twentieth century. In this part of the book, the author also studies the main aspects of the methodological evolution of the techniques of standard statistical analysis that he widely uses. This allows him to clarify once more the limits of this sort of approach referring to the level of integration between theory and research.

Nevertheless, it is important to stress that the descriptive review provided in this part is the necessary logical assumption for the application of the ensuing simulative models. To complete this section of the book, the author proposes a diachronic review of the institutional architecture of the didactic supply in both countries. Manzo demonstrates that the benefit and cost structure of the educative investment weighs in a very different way according to the different social origins, also because of the different institutional structures.

In the last part of the book, the author faces the true implementation of a generative model through the computational instruments. Starting from the idea that it is possible to consider educational stratification as a complex adaptive system, Manzo develops a generative model which he defines as "of interdependent educational choices." On the analytical level, Manzo writes, the model is based on three groups of hypotheses portraying the social mechanisms at work. The first one aims to the study of the actors' choices individually considered; the second one describes the informal relations among individuals and the influence they have on individual choices; finally, the third one evaluates the relation between factors determining the individual action and the composition effects these same choices cause.

The development of the model implies the consideration of the main explicative theories in sociological literature, starting from the socio-cultural constraint theory to the rational choice approach. The simulative model considering the interaction among artificial agents within theoretically fixed parameters determines the evolution of educational inequalities in virtual societies. The results can be compared with the empirical data and it is thus possible to evaluate how fitting the simulative model is. Thanks to this procedure, Manzo shapes the morphology of the inequality structure in both countries and clarifies what could be the contribution of the three levels of hypotheses already stated.

In the last chapter, by manipulating the internal parameters of simulation, the author tries to describe the functioning of possible Utopian models of educational stratification. In this case, the logic is not that of creating an explicative theory of the observed reality but, on the contrary, following a counterfactual process, it is that of trying to understand what will be the impacts of some changes in the structure of constraints on the whole phenomenon. This approach allows the author to identify the contribution of the segregation structure of the social actor networks in amplifying the inequalities among groups in terms of probability and opportunity to achieve most desirable positions in social educational hierarchy. Manzo ends his study with the discussion of the possible fields of application of this approach for public policies, proposing a new interesting scenario for the development of evaluation methods for public decision-making processes.

The book is surely an important protagonist in the ongoing debate not only because of its explicative results but also because of the originality and the epistemological cogency of the methodological approach. As a matter of fact, on the one hand the heuristic value of Manzo's theoretical proposal has to be further deepened, also in the face of ensuing studies, on the other hand this contribution will be an essential basis for comparison for anybody who will accept his proposal to use analytical computational models to make the relationship between theoretical and empirical issues closer.

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