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# Mobility Regimes and Generative Mechanisms: A Comparative Analysis of Italy and the United States

#### Maurizio Pisati

The purpose of this paper is to carry out a comparative analysis of the intergenerational mobility regimes observed in Italy and the United States in the middle of the 1980s. First, I propose a theoretical model that accounts for mobility propensities in terms of underlying generative mechanisms. This model is then operationalized, translated into a hybrid log-linear model for frequencies, and fitted to the pertinent mobility tables to verify whether (a) the observed data offer evidence in favour of the existence of the hypothesized mechanisms; and (b) cross-sex and/or cross-national dissimilarities in the action of such mechanisms do exist. The analysis shows that (a) all the hypothesized mechanisms contribute to generating the observed mobility regimes; (b) general resources and the objective desirability of classes account for most of the variation in mobility propensities observed in the two countries under study; (c) in both countries, men and women are characterized by the same mobility regime, except that women are less likely to inherit their father's business; (d) compared with the United States, Italy is characterized by a substantially higher degree of class inequality in terms of mobility chances.

## Introduction

The purpose of this paper is to carry out a comparative analysis of the intergenerational mobility regimes exhibited by two Western societies in the middle of the 1980s: Italy and the United States. To this aim I will analyse four intergenerational mobility tables that cross-classify Italian and US men and women aged 23-65 according to their father's occupational class (the origin) and their own occupational class (the destination).<sup>1</sup> The data used in this paper come from two different sources. The Italian data are drawn from the Indagine nazionale sulla mobilità sociale (National Survey on Social Mobility), carried out in 1985 by a pool of Italian universities (Barbagli et al., 1986). In turn, the US data come from the General Social Survey (Davis and Smith, 1989a, 1989b). For the purposes of the present study, I have chosen and pooled together five General Social Surveys, namely

those conducted in the period 1983–7. By so doing, I have obtained a reasonably large data-set whose central survey year (1985) coincides with the year in which the Italian survey was carried out.<sup>2</sup> The Italian data-set includes 3,262 cases (1,909 men and 1,353 women), while the US data-set includes 4,871 (weighted) cases (2,317 men and 2,554 women).

To represent the class structure, I will use a schema made up of ten different occupational classes: (1) *Entrepreneurs:* this class includes all the owners of means of production who have at least four employees, regardless of their sector of activity; (2) *Professionals:* this class includes self-employed or salaried higher-grade professionals, scientists, artists, and athletes; (3) *Managers:* this class includes managers and administrators in private or public firms and organizations; (4) *Skilled white-collar:* this class includes higher-grade office and commerce employees, as well as semi-professionals and

higher-grade technicians; (5) Semi- and unskilled whitecollar: this class includes lower-grade office and commerce employees; (6) Urban petty bourgeoisie: this class includes the small proprietors, mainly artisans and store owners, who have less than four employees or no employees at all, and whose sector of activity is neither agriculture, forestry, nor fishery; (7) Skilled workers: this class includes supervisors and skilled manual workers employed in the service sector or in the sectors traditionally associated with the Fordist system of mass production and consumption (mining, manufacturing, distribution, construction), as well as security workers; (8) Semi- and unskilled workers: this class includes lower-grade manual workers employed in the service sector or in the sectors traditionally associated with the Fordist system of mass production and consumption (see above); (9) Agricultural petty bourgeoisie: this class includes the small proprietors, mainly farmers, who have less than four employees or no employees at all, and whose sector of activity is agriculture, forestry, or fishery; (10) Agricultural workers: this class includes salaried manual workers in the agricultural, forestry, or fishery sectors.

In the next section I propose a theoretical model for the explanation of mobility regimes in terms of underlying generative mechanisms. In the third section such a model is operationalized and translated into a proper statistical model, namely a hybrid loglinear model for frequencies. This model is then fitted to the pertinent mobility tables to verify whether (a) the observed data offer evidence in favour of the existence of the hypothesized mechanisms; and (b) cross-sex and/or cross-national dissimilarities in the action of such mechanisms do exist. The fourth section is dedicated to the interpretation of results and, finally, the last section is devoted to some concluding remarks.

# Explaining Mobility Regimes: A Theoretical Model

In this paper I will adopt an explanatory strategy to which, following Pawson (1989: 160), I will refer as *generative modelling*. The basic claim of this strategy is that, in the investigation of a given social phenomenon, the identification of regular, non-spurious relationships between the variables of interest is an important descriptive operation but lacks any explanatory power. Hence, this preliminary operation must be supplemented by the formulation of models that make explicit hypotheses about the underlying *mechanisms* that have generated the social phenomenon under study, empirically represented by the observed data (Pawson, 1989: 157–159, 1993: 31–33; see also Boudon, 1973; Elster, 1983*a*: 25–26, 1989: ch. 1, 1993: 1–15; Little, 1991: 6–9, ch. 2). A fuller account of the type of explanatory strategy which underlies this paper is given in a series of writings by Boudon (1977, 1979, 1984, 1986, 1987).

In short, let M indicate the macrosocial phenomenon to be explained. The first step is to regard M as the outcome of the combination of a set of individual actions *m* carried out by intentional actors. Formally, M=M(m), that is M is a function of the individual actions m. In turn, the actions m must be explained or, to use Boudon's words, must be made understandable in the Weberian sense. To this aim, one must recognize that actors are always embedded in a social context, i.e. they always occupy a social position characterized by a given system of resources and constraints that condition their action. Thus, to be understood, the individual actions m must be related to the social environment S where the actors are located. Formally, m=m(S), that is each action m is a function of the actor's social position S. Finally, S must be explained in terms of a set P of macrofeatures of the social system within which M has emerged. Again, formally S=S(P). On the whole,  $M=M\{m[S(P)]\}$  or, more simply, M=MmSP. In words, M is the outcome of actions, which are the outcome of the social environment of the actors. the latter being the outcome of macrosociological variables' (Boudon, 1987: 46). In the rest of this section I will devise a theoretical model for the explanation of mobility regimes that takes the form M=MmSP; moreover, since the interpretation of intentional actions requires that some model of the actor be assumed (cf. Boudon, 1984: ch. 2, 1987: 55), I will postulate that individuals are, on the whole, rational.

Let us begin with the function M=M(m). In the present case M represents the mobility regime<sup>3</sup> that characterizes a given society – or sub-population – in a given period, while the actions mcorrespond to the individual movements carried out within the class structure during that period. Since all the individual movements characterized by the same origin and the same destination are regarded as homogeneous, we can aggregate individual actions and write  $M = M(m_{ii})$ , where *i* indexes the class of origin and *j* indexes the class of destination. By so doing, we shift our attention from the actual movements *m* carried out by unique individuals to the propensities for mobility  $m_{ij}$  that characterize the members of each class of origin taken as a whole. In other words, the mobility regime M is seen as a function of the propensities that the members of the various origin classes have for moving to the different destinations available in the system.<sup>4</sup> In turn, the mobility propensities  $m_{ij}$ can be regarded as a function of both the class of origin  $O_i$ , which represents the social environment where the action takes place, and the class of destination  $D_i$ , that is the goal towards which the action is aimed; formally,  $m_{ij} = m_{ij} (O_i, D_j)$ . Finally, if  $(O_i, D_j)$ .  $D_i$ ) is taken to represent the class structure, then P can be seen as the system of social stratification, that is the set of factors that structure inequality within the social system; formally,  $(O_i, D_i) = f(P)$ . Essentially, this function implies that the different classes provide their members with unequal systems of resources and constraints.

By taking into account class inequality – i.e. the function  $(O_i, D_i) = f(P)$  – we are able to clarify the mechanisms that shape actors' mobility propensities and, ultimately, generate the observed mobility regime. The first step towards such a clarification is to modify the form of function  $m_{ij} = m_{ij}(O_i, D_j)$ . More precisely, I will translate the configuration of the class structure  $(O_i, D_j)$  into four basic elements: (a) the amount of general resources  $\rho_i$ , that characterizes class of origin  $O_i$ ; (b) the amount of destination-specific resources  $\rho_{ij}$  that characterizes class of origin  $O_i$  with respect to class of destination  $D_i$ ; (c) the degree of objective desirability  $\delta_i$  that characterizes class of destination  $D_i$ ; and (d) the degree of preference  $\delta_{ij}$  for class of destination  $D_i$  that characterizes class of origin  $O_i$ . The meaning of each element can be clarified as follows.

1. The first two elements represent class inequality, that is the fact that different classes provide their members with unequal amounts - and kinds - of resources. If we regard the various occupational destinations as the 'commodities' to buy and resources as the 'currency unit', it is easy to see that the amount of resources available to individuals determines their 'buying power' and, ultimately, their mobility propensities (cf. below). In this regard, a distinction is made between the general resources  $\rho_i$ , which can be used to 'buy' any occupational destination, and the destination-specific resources  $\rho_{ij}$ , which, by contrast, can be spent only to acquire particular destinations.<sup>5</sup> Both general and destination-specific resources are regarded as having an objective character, that is as expressing the factual system of resources and constraints with which the members of the different classes are endowed.<sup>6</sup>

2. The third element concerns the objective desirability of the different occupational destinations, i.e. the benefits each class effectively grants to its members. The underlying assumptions here, are four: (a) the objective desirability of classes is defined in terms of the general resources they provide for their members; (b) the degree of objective desirability attributed to a given class exactly reflects the amount of general resources that characterizes the class itself; (c) the higher the degree of objective desirability attributed to a given class position, the higher the 'price' one must pay to occupy it; and (d) the degree of objective desirability attributed to any given occupational destination is the same across different origins.

3. Finally, while the third element implies an objective – and, therefore, origin-blind – evaluation of the 'goodness' of the different destinations, the fourth acknowledges that actors' preferences for the various destinations may be 'socially shaped' by origin-specific norms, values, dispositions, attitudes, etc. (cf. Boudon, 1973; Elster, 1983*a*, 1983*b*, 1989, 1993).<sup>7</sup>

Given these specifications, we can amend the form of the function that relates mobility propensities to the class structure as follows:  $m_{ij} = m_{ij}(\rho_i, \rho_{ij}, \delta_j, \delta_{ij})$ . In words, the propensity for moving from origin  $O_i$  to destination  $D_j$  is a function of the amount of origin-specific general resources  $\rho_i$ , the amount of origin-specific and destination-specific resources  $\rho_{ij}$ , the degree of destination-specific objective desirability  $\delta_j$ , and the degree of origin-specific and destination-specific preference  $\delta_{ij}$ .

What are the generative mechanisms implied by this function? In short, each actor's resources  $(\rho_i, \rho_{ij})$  and preferences  $(\delta_j, \delta_{ij})$  determine the costs and benefits he or she attributes to each possible movement in the class structure; in turn, these costs and benefits affect the actor's propensities for moving to the different destinations. In general, the larger the amount of resources available, the lower the relative cost of - and, therefore, the higher the propensity for - moving to any given position. On the other hand, the higher the desirability attached to a given destination, the higher the perceived benefits of - and, thus, the propensity for - moving to it.

In summary, the generative mechanisms underlying any given mobility regime can be represented by the following model:

$$M = M\{m_{ij}[\rho_i, \rho_{ij}, \delta_j, \delta_{ij}(P)]\}$$

In the next section, this model will be operationalized and applied to the comparative analysis of the intergenerational mobility regimes observed in Italy and the United States in the middle of the 1980s.

# The Model Applied to a Comparative Analysis of Italy and the United States

#### **Model Specification**

Though similar in many respects, Italy and the United States present several sharp historical, institutional, and cultural differences that can be expected, *prima facie*, to translate into distinct mobility regimes. My purpose, here, is to verify whether such a supposed dissimilarity does exist and, if so, how it manifests itself.

Since there exists no any previous, systematic, comparative study of social mobility processes in Italy and the United States, there is no opportunity to link the analyses that follow to a well-defined frame of reference. This fact notwithstanding, the copious literature on comparative mobility does provide the researcher with several useful clues. In this respect, it can be observed that the various comparative analyses of social mobility that have considered both Italy and the United States have invariably shown that, on the whole, Italian intergenerational mobility rates - both absolute and relative - are considerably lower than those in the US (Lipset and Bendix, 1959; Miller, 1960; Hazelrigg and Garnier, 1976; Tyree et al., 1979; Heath, 1981; Raftery, 1985; Ganzeboom et al., 1989; Erikson and Goldthorpe, 1992;

Xie, 1992). This finding is hardly surprising if one considers that the United States has been traditionally regarded as a country characterized by an 'exceptionally' high degree of social fluidity.8 Although empirical research has substantially weakened the thesis of American 'exceptionalism' (cf. Lipset and Bendix, 1959; Blau and Duncan, 1967; Featherman et al., 1975; Kerckhoff et al., 1985; Erikson and Goldthorpe, 1985, 1992), there is still enough evidence to maintain that, on the whole, the US class structure is more 'fluid' than that of most other Western societies (cf. Erikson and Goldthorpe, 1992: 337; see also Kappelhoff and Teckenberg, 1987; Yamaguchi, 1987; Ganzeboom et al., 1989; Wong, 1990, 1992). On the other hand, Cobalti and Schizzerotto (1994; 226-231) have shown that Italy, when compared with a set of nine European countries, exhibits the highest degree of mobility chance inequality.

Besides the national context, the other possible source of variation in intergenerational mobility regimes that I take into account is sex. In this regard, the general conclusion that most cross-sex comparative analyses have reached is that men and women are characterized by very similar patterns of relative mobility chances (Pöntinen, 1983; Roos, 1985: ch.4; Goldthorpe *et al.*, 1987: ch.10; Portocarero, 1987; Hout, 1988; Schadee and Schizzerotto, 1990; Erikson and Goldthorpe, 1992: ch.7; Cobalti and Schizzerotto, 1994). More precisely, these studies have shown that women tend to exhibit a moderately higher degree of social fluidity than men, mainly because of a lower propensity for immobility, especially among the daughters of the petty bourgeoisie.

According to previous research, then, we may expect that the four sub-populations under study will be characterized by different mobility regimes. To shed light on the nature and the extent of such dissimilarities, in the following I will try to answer two basic questions:

- (a) What mechanisms underlie the intergenerational mobility regimes observed in the four sub-populations under analysis?
- (b) How does the action of such mechanisms vary if at all across sub-populations?

To tackle the first question, I have operationalized the theoretical model presented in the previous section and translated it into a hybrid log-linear model for frequencies that, for each sub-population, can be expressed as follows:

$$\begin{aligned} \ln(F_{ij}) = & \mu + \omega_i + \psi_j + \zeta^{SEI} z_j^{SEI} z_j^{SEI} + \gamma^{IMMB} v_{ij}^{IMMB} \\ & + \gamma^{IMMP} v_{ij}^{IMMP} + \gamma^{IMM4} v_{ij}^{IMM4} + \gamma^{PROP} v_{ij}^{PROP} \quad (1) \\ & + \gamma^{4GRI} v_{ij}^{4GRI}, \end{aligned}$$

where  $F_{ij}$  denotes the expected frequency in cell (i,j) of a given mobility table.<sup>9</sup> To simplify the notation, equation 1 can be re-expressed as follows:

$$\ln (F_{ij}) = O + D + SEI + IMMB + IMMP + IMMA + PROP + A GRI.$$
<sup>(2)</sup>

As we can see, equation 1 - or, equivalently, equation  $2 - \text{ states that cell frequencies are a function of several components whose meaning can be elucidated as follows:<sup>10</sup>$ 

1. The first three components  $-\mu$ ,  $\omega_i$  and  $\psi_j$  – have been included in the model to reproduce exactly the marginal distributions of the mobility tables, assumed as given (see n. 3). As such, they do not lend themselves to particular interpretation in terms of generative mechanisms.

2. All the other components represent social fluidity, that is the net association between origin and destination. In terms of the theoretical model presented in the previous section, they express the effects of resources and preferences on propensities for mobility and, therefore, represent the generative mechanisms that are presumed to underlie the mobility regimes that are the subject of the analysis. The first of these components, i.e. the term SEI, is a linear-by-linear interaction (cf. Hout, 1983: 53) made up of three elements: the origin scores  $\chi_i^{SEI}$ , the destination scores  $\chi_i^{SEI}$ , and the association parameter  $\zeta^{SEI}$ . The origin scores express the amount of general resources that characterizes each class of origin  $O_i$ . In turn, destination scores express the degree of objective desirability that characterizes each class of destination  $D_i$ . Both general resources and objective desirability of classes are measured by means of the Duncan Socioeconomic Index (Duncan, 1961a, 1961b).<sup>11</sup> More precisely, the amount of general resources and the degree of objective desirability attributed a priori to each class are expressed by the mean Duncan SEI score computed for that class.<sup>12</sup> As far as the association parameter  $\zeta^{SEI}$  is concerned, its value – to be estimated from the data - can be regarded as expressing the action of a set of macromechanisms that adjust - i.e. increase or decrease - the 'exchange value' of general resources and hence the 'buying power' with which the members of the

various classes are endowed – the commodities to 'buy' being the different occupational destinations. The larger the value taken on by this parameter, the larger the 'vertical distance' between any two origin classes in terms of general 'buying power' and therefore, *ceteris paribus*, the higher the degree of class inequality in terms of mobility chances.

3. As is well known, the cells that, in a mobility table, represent social immobility - i.e. the cells that lie on the main diagonal - typically display large frequencies, meaning that individuals' propensity to remain in the same class position as their father tends to be relatively high. The SEI term presented above helps to account for immobility by means of a very elementary mechanism: the higher the degree of objective desirability attributed to a given class, the higher the propensity to remain in that class. However, this mechanism is not sufficient to account for all the immobility observed. Thus, three supplementary terms have been included in the model, namely, IMMB, IMMP, and IMMA. As we can see from equation 1, each of these three terms is made up of a quantitative variable  $v_{ii}$ , whose values have been established a priori on theoretical grounds, and an associated parameter  $\gamma$ , whose value is to be estimated from the data. The three quantitative variables are defined as follows:

(a) 
$$v_{ij}^{IMMB} = 1$$
 if  $(i = j)$ ,  
 $v_{ij}^{IMMB} = 0$  otherwise  
(b)  $v_{ij}^{IMMP} = 2$  if  $(i = j = 1)$ ,  
 $v_{ij}^{IMMP} = 1$  if  $[(i = j = 2)$   
or  $(i = j = 6)$  or  $(i = j = 9)$ ]  
 $v_{ij}^{IMMP} = 0$  otherwise  
(c)  $v_{ij}^{IMMA} = 1$  if  $[(i = j = 9)$  or  $(i = j = 10)$ ]  
 $v_{ij}^{IMMA} = 0$  otherwise.

As far as generative mechanisms are concerned, these three variables represent the action of particular destination-specific resources and origin-specific preferences. First, the term IMMB represents a 'basic' propensity for immobility that characterizes all classes alike. Such a basic propensity for immobility can be seen as the outcome of the action of two distinct mechanisms. On the one hand, individuals derive from their family – i.e. from their class of origin – a certain amount of *social resources* (e.g. social networks, channels of influence and information, etc.) that, ceteris paribus, can facilitate their access to occupations analogous to their father's (Goldthorpe etal., 1987: 99). On the other hand, a general propensity for immobility may also arise from the action of adaptive preferences (Elster, 1983b). When faced with occupational choice, individuals are never completely able to compare and evaluate objectively all the different options - i.e. the different occupational destinations - that make up their opportunity set. The problem is that choosing an occupation means opting for a definitive career and life-style. If one could try each and every alternative for a lifetime, then one could make an informed choice between them. Since this is not possible, individuals may tend to overrate the benefits they ascribe to the occupations that are most familiar to them, namely those analogous to their father's (cf. Elster, 1989: 32-33).

The term IMMP, in turn, represents the effects exerted by the intergenerational transmission of economic capital on the propensity for immobility. Expressly, this term accounts for the peculiar opportunity that sons and daughters of entrepreneurs, professionals, urban petty bourgeois, and farmers have to 'inherit' their father's capital, namely business enterprises and professional practices (Goldthorpe *et al.*, 1987: 99).<sup>13</sup>

Finally, the term IMMA has been included in the model to account for the 'social viscosity' that typically characterizes the agricultural classes due to the cultural barriers that separate rural from urban society (cf. Erikson and Goldthorpe, 1992).

4. The term PROP is made up of the quantitative variable  $v_{ij}^{PROP}$ , whose values have been established *a priori* on theoretical grounds, and the associated parameter  $\gamma^{PROP}$ , whose value is to be estimated from the data. The variable  $v_{ii}^{PROP}$  is defined as follows:

$$v_{ij}^{PROP} = 2$$
 if  $[(i = 1 \text{ and } j = 6) \text{ or } (i = 1 \text{ and } j = 9)$   
or  $(i = 6 \text{ and } j = 1)$  or  $(i = 9 \text{ and } j = 1)]$ ,  
 $v_{ij}^{PROP} = 1$  if  $[(i = 6 \text{ and } j = 9) \text{ or } (i = 9 \text{ and } j = 6)]$ ,  
 $v_{ij}^{PROP} = 0$  otherwise.

The term PROP represents the effects exerted by destination-specific resources on the mobility propensities of the individuals who come from three classes: entrepreneurs, urban petty bourgeoisie, and agricultural petty bourgeoisie. Expressly, this term takes into account the role of ownership of means of production as a mobility channel and postulates that (a) sons and daughters of entrepreneurs possess resources that facilitate their access to both the urban and the agricultural petty bourgeoisie; (b)individuals originating from the urban petty bourgeoisie possess resources that facilitate their access to the entrepreneurial class and, to a lesser extent, to the agricultural petty bourgeoisie; and (c) children of farmers possess resources that facilitate their access to the entrepreneurial class and, to a lesser extent, to the urban petty bourgeoisie.<sup>14</sup>

5. Finally, the term AGRI is made up of the quantitative variable  $v_{ij}^{AGRI}$ , whose values have been established *a priori* on theoretical grounds, and the associated parameter  $\gamma^{AGRI}$ , whose value is to be estimated from the data. The variable  $v_{ij}^{AGRI}$  is defined as follows:

$$v_{ij}^{AGRI} = 1$$
 if  $[(i = 9 \text{ and } j = 10) \text{ or } (i = 10 \text{ and } j = 9)]$ ,

$$v_{ij}^{4CRI} = -1 \text{ if } [(i = 10 \text{ and } j = 2) \text{ or } (i = 10 \text{ and } j = 3)$$
  
or (i = 10 and j = 4) or (i = 10 and j = 5)  
or (i = 2 and j = 10) or (i = 3 and j = 10)  
or (i = 4 and j = 10) or (i = 5 and j = 10)]

 $v_{ii}^{AGRI} = 0$  otherwise.

The term AGRI represents, at the same time, the 'affinity' between the two rural classes (farmers and agricultural workers) and the 'disaffinity' between the agricultural working class and all the classes based on white-collar occupations (professionals, managers, skilled and unskilled white-collar workers). These affinities and disaffinities should be interpreted as reflecting the effects of both destination-specific resources and origin-specific preferences. Specifically, the affinity between the two rural classes may be attributed to the fact that they both pertain to the agricultural sector. Therefore (a) children of farmers are likely to possess resources - both skills and social resources - that, ceteris paribus, facilitate their access to the agricultural working class; and (b) likewise, sons and daughters of agricultural workers are likely to possess resources that, ceteris paribus, facilitate their access to the agricultural petty bourgeoisie. In turn, the disaffinity between the agricultural working class, on the one hand, and the white-collar classes on the other may be conceived of as a consequence of the great 'distance' – in terms of both social resources and origin-specific preferences – that separates rural manual workers from urban non-manual workers. Put differently, the movements between these two groups of classes may be regarded as particularly difficult to carry out because they involve the crossing of two social boundaries: one that separates urban from rural society, and another that divides manual and non-manual work.

By constructing specific hypotheses about the generative mechanisms that are presumed to underlie the intergenerational mobility regimes observed in the four sub-populations under study, the model illustrated just now suggests a possible answer to our first research question (see above). But how does it deal with the comparative question? Strictly speaking, the model represents only the mechanisms that operate at the micro level, since it establishes a given set of relationships between the actors' resources and preferences and their mobility propensities. In this respect, the basic assumption is that the proposed model is valid for Italian and US men and women alike.<sup>15</sup> Such a similarity, however, does not necessarily hold at the macro level; that is, the *intensity* with which one or more mechanisms operate may vary across sub-populations due to cultural and/or institutional differences.

Let us consider, for example, the role played by general resources.<sup>16</sup> As mentioned above, the value taken on by the association parameter  $\zeta^{SEI}$  can be regarded as expressing the action of a set of macromechanisms that adjust the 'exchange value' of general resources. Such macromechanisms can be explicitly identified and related to three important institutions: the educational system, the labour market, and the family structure. In brief, the structure of the educational system affects individuals' chances of converting the general resources they derive from their family of origin into personal educational resources that, in general, represent a 'hard currency' when it comes to 'buying' occupational destinations. The characteristics of the educational system, along with those of the labour market, also affect the actual exchange value of such educational resources - i.e. the socioeconomic return to education. Finally, the structure of the family system influences individuals' chances of drawing resources

from their family of origin – mainly economic and social resources – over and above those spent to acquire educational credentials.

The limited number of sub-populations involved in our comparative analysis does not allow the formal inclusion of all these macromechanisms in the explanatory model.<sup>17</sup> The only way to tackle the comparative question, then is (*a*) to test for the existence of cross-sex and/or cross-national differences in the values taken on by the parameters included in the log-linear model; and (*b*) to attribute the observed dissimilarities to the different ways in which the relevant macromechanisms operate in the sub-populations under study. In this regard, the cross-national differences that are most likely to be relevant to the present analysis can be summarized as follows.

1. The degree of class inequality in terms of educational opportunities is higher in Italy than in the United States (Shavit and Blossfeld, 1993). This means that US men and women can convert their family resources into personal educational resources at a more favourable 'exchange rate' than their Italian counterparts.

2. Overall, the net association between education and occupational destination is stronger in Italy than in the United States (Shavit and Müller, 1995). In other words, the exchange value of personal educational resources is higher in Italy than in the USA. This cross-national difference is largely a consequence of the different characteristics of the two national educational systems. In particular, the Italian and US school systems exhibit very different degrees of standardization (cf. Hopper, 1968; Allmendinger, 1989). In the United States, educational administration is decentralized and educational provision is unstandardized (Allmendinger, 1989: 233), which means that schools differ widely in terms of organization, curricula, and academic criteria. On the other hand, the administration of the Italian school system is highly centralized, curricula are established at the national level by the Ministry of Education, final examinations are standardized in content and level of difficulty, and educational qualifications have a legal value.

In addition, in the United State students are streamed into differentiated educational routes at a relatively late age, and both high school and college curricula 'are generally broad, and not strongly orientated toward preparing the students for careers. Career training, then, is gained either by passing on to special professional or graduate schools... or by on-the-job training upon entry into the labour market' (Allmendinger, 1989: 236-237). Conversely, in Italy students experience early educational differentiation (at age 14), educational tracks are fairly distinguished, and most kinds of secondary schools and universities are intended to train for specific occupations. These cross-national dissimilarities suggest that, compared with their Italian counterparts, US employers 'can rely less on educational degrees as "screening devices" when allocating people recruited from outside to positions within the firm' (Haller et al., 1985: 584). Therefore, in the United States the role played by personal educational resources in allocating individuals to class positions is somewhat less important than in Italy.

3. In the United States, the possession of a higher education substantially mitigates the direct effect of social origin on mobility chances (Hout, 1988); on the contrary, in Italy such an effect does not vary across educational levels (Cobalti and Schizzerotto, 1994). This evidence suggests that family resources exert a more pervasive and persistent influence in Italy than in the United States, probably due to the fact that in the former country the ties between parents and children tend to be stronger and more enduring (cf. Cavalli and De Lillo, 1993).<sup>18</sup>

On the basis of these observations, it is reasonable to expect that the exchange value of resources – and, therefore, the overall degree of class inequality in terms of mobility chances – will be higher in Italy than in the United States. On the other hand, insofar as the cross-sex comparison is concerned, neither theory nor previous research allows us to formulate firm expectations of any kind.

#### Model Testing

Table 1 displays the goodness-of-fit statistics pertaining to several log-linear models applied to the full origin-by-destination-by-sex-by-country table.<sup>19</sup> As we can see, the baseline model is:

$$\ln(F_{ijkl}) = O * S * C + D * S * C, \qquad (3)$$

where *i* indexes the class of origin, *j* indexes the class of destination, *k* indexes sex, *l* indexes country,  $F_{ijkl}$  denotes the expected frequency in cell (*i*, *j*, *k*, *l*), O

denotes the class of origin, D denotes the class of destination, S denotes sex and C denotes country. This baseline model is known as the 'conditional independence model' since it fits the three-way marginals of origin-by-sex-by-country and destinationby-sex-by-country but, at the same time, states that within each sub-population - i.e. within each combination of sex and country - there is no association between origin and destination. As shown in Table 1, the fit of the conditional independence model is clearly unsatisfactory, suggesting that origin and destination are not independent. Model 2 incorporates this suggestion, specifying that (a) there is a certain degree of association between origin and destination; (b) this association takes the form specified in equation 1 above; and (c) the action of the mechanisms responsible for the observed pattern of association between origin and destination does not vary across sub-populations. As shown in Table 1, this model has a much better fit than the previous one; moreover, the goodnessof-fit statistics pertaining to Models 3 to 8 indicate that all the generative mechanisms embodied in Model 2 exert a significant effect on mobility propensities. Therefore, Model 2 can be taken as a baseline to test for the existence of cross-sex and/or cross-national differences in social fluidity.

Table 2 reports the results of these tests. As we can see, Models 2 to 13 add the twelve possible secondorder interaction effects - one at a time - to the baseline model, whereas Models 15 to 26 remove such effects - still one at a time - from a model that includes all the possible cross-sex and crossnational differences (Model 14). The goodness-offit statistics pertaining to these models suggest that Model 27 is a plausible candidate for the position of 'preferred model'. Yet, the Bayesian information criterion (BIC) values associated with Models 28 to 33 indicate that Model 27 may be over-parameterized. None of the more parsimonious alternatives, however, clearly emerges as the 'best' model. To deal with this model uncertainty, I have adopted a Bayesian approach based on the 'Occam's Window' algorithm and posterior model probabilities (Raftery, 1994, 1995; Raftery and Richardson, 1995). In this approach, inference about each parameter of interest is based on a weighted average of its posterior distributions under a given set of models, where the weights are the posterior model probabilities;

	Model	L <sup>2</sup>	$\chi^2$	df	BIC	Δ
1.	O*S*C+D*S*C	2257.7	2885.1	324	- 659.7	17.6
2.	{Model 1}+SEI+IMMB+IMMP+	617.6	754.7	318	- 2245.7	8.8
	IMMA+PROP+AGRI					
3.	{Model 2} – SEI	1053.6	1133.7	319	-1818.8	12.4
4.	{Model 2} – IMMB	639.1	804.9	319	-2233.3	8.9
5.	{Model 2} – IMMP	692.9	829.1	319	- 2179.5	9.4
6.	{Model 2} – IMMA	916.9	938.7	319	- 1955.5	11.0
7.	{Model 2} – PROP	672.8	846.1	319	- 2199.6	9.1
8.	{Model 2} – AGRI	677.8	786.0	319	- 2194.5	9.3
	. ,					

 Table 1. Goodness-of-fit statistics for selected log-linear models applied to the full origin-by-destination-by-sex-by-country table: test of mechanisms for Italian and US men and women, 1985

 $K_{Q'}$ :  $L^2$ =likelihood-ratio chi-square;  $\chi^2$ =Pearson chi-square; df=degrees of freedom; BIC=Bayesian information criterion;  $\Delta$ =percentage of cases misclassified by the model.

the models included in the average are selected by the Occam's Window algorithm that, in its strict form, is based on three steps.

- 1. Select a starting set of models: in our case, this set includes Models 27 to 33.
- 2. Exclude models that are at least twenty times less likely *a posteriori* than the most likely model, coresponding to a BIC difference equal to or greater than six. In our case, the most likely model (according to BIC) is Model 29, which is far more likely than Models 28 (BIC difference=24.5) and 33 (BIC difference=13.9). These two models are then removed from the starting set.
- 3. From the remaining subset, exclude models that have more likely sub-models nested within them. In our case, Model 29 is nested in Model 27 and has a more negative BIC; therefore, Model 27 is excluded. Likewise, Model 32 is nested in Model 30 and has a more negative BIC; therefore, Model 30 is excluded.

The models that are left (in our case, Models 29, 31, and 32) are said to belong to the Occam's Window and, as such, may be used for estimating the parameters of interest. The results of this estimation process, that takes into account model uncertainty, are displayed in Table 3.<sup>20</sup> In the first place, we can see that the posterior probability for Model 31 is very low (6 per cent), whereas Models 29 and 32 turn out to be almost equally likely (46 and 48 per cent respectively). Since the posterior probability that the parameter IMMB.C takes on a value different from zero is also very low (6 per cent), we can reasonably conclude that the intensity with which the basic propensity for immobility manifests itself does not vary significantly across countries. On the other hand, the posterior probability that the parameter IMMP.C takes on a value different from zero is very high (94 per cent) and, therefore, indicates that the effect of capital inheritance on immobility propensities does vary crossnationally. Things are less definite in the case of the parameter IMMP.S. The posterior probability that there exists a cross-sex difference in the effect of capital inheritance on immobility propensities is about one half (52 per cent) and, therefore, does not help us to resolve the uncertainty. However, since the Bayesian estimate of this parameter is consistent with the findings of previous research (see above), I will assume that this cross-sex difference is real. Hence, Model 29 can be regarded as the preferred model.<sup>21</sup>

The Bayesian parameter estimates and the corresponding standard errors for the preferred model are reported in Table 3.<sup>22</sup> As we can see, such estimates are very close to their maximum-likelihood counterparts (cf. Table 4). The former, however, take account of model uncertainty and have proved to yield better out-of-sample prediction than any single model that might reasonably be selected (Raftery, 1995). These parameter estimates will be used in the next section to carry out a more detailed analysis of the mobility propensities exhibited by Italian and US men and women.

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	Model	L <sup>2</sup>	χ <sup>2</sup>	df	BIC	Δ
1.	O*S*C+D*S*C+SEI+IMMB+	617.6	754.7	318	- 2245.7	8.8
	IMMP+IMMA+PROP+AGRI					
2.	{Model 1}+SEI.S	617.6	753.8	317	-2236.7	8.8
3.	Model 1 + SEI.C	562.7	722.1	317	-2291.6	8.1
4.	{Model 1}+IMMB.S	614.5	742.7	317	-2239.9	8.8
5.	{Model 1}+IMMB.C	575.2	696.5	317	-2279.2	8.3
6.	{Model 1}+IMMP.S	610.0	725.9	317	-2244.4	8.7
7.	{Model 1}+IMMP.C	579.9	710.1	317	-2274.5	8.4
8.	{Model 1}+IMMA.S	615.2	733.9	317	-2239.1	8.8
9.	{Model 1}+IMMA.C	616.1	739.3	317	-2238.3	8.8
10.	{Model 1}+PROP.S	617.5	754.8	317	-2236.8	8.8
11.	{Model 1}+PROP.C	615.6	757.7	317	-2238.8	8.7
12.	{Model}+AGRI.S	617.0	751.7	317	-2237.3	8.8
13.	{Model 1}+AGRI.C	617.4	753.2	317	-2236.9	8.8
14.	{Model 1}+SEI.S+SEI.C+IMMB.S	523.5	653.5	306	-2231.8	7.6
	+IMMB.C+IMMP.S+IMMP.C+					
	+IMMA.S+IMMA.C+PROP.S+					
	+PROP.C+AGRI.S+AGRI.C					
15.	{Model 14} – SEI.S	523.6	652.4	307	-2240.8	7.6
16.	{Model 14} – SEI.C	552.2	650.0	307	-2212.2	7.9
17.	{Model 14} – IMMB.S	523.5	653.1	307	-2240.8	7.6
18.	{Model 14} – IMMB.C	527.5	665.1	307	-2236.8	7.7
19.	{Model 14} – IMMP.S	528.5	666.7	307	- 2235.8	7.7
20.	{Model 14} – IMMP.C	534.2	658.3	307	-2230.1	7.8
21.	{Model 14} – IMMA.S	524.6	660.7	307	-2239.7	7.6
22.	{Model 14} – IMMA.C	523.7	653.7	307	-2240.7	7.6
23.	{Model 14} – PROP.S	523.8	657.6	307	-2240.5	7.6
24.	{Model 14} – PROP.C	524.4	659.6	307	- 2239.9	7.6
25.	{Model 14} – AGRI.S	523.5	654.0	307	-2240.8	7.6
26.	{Model 14} – AGRI.C	523.5	653.1	307	-2240.8	7.6
27.	{Model 1}+SEI.C+IMMB.C	527.3	671.2	314	-2300.1	7.6
	+IMMP.S+IMMP.C					
28.	{Model 27} – SEI.C	556.2	665.0	315	-2280.2	8.0
29.	{Model 27} – IMMB.C	531.7	685.0	315	-2304.7	7.7
30.	{Model 27} – IMMP.S	536.6	695.3	315	- 2299.7	7.7
31.	{Model 27} – IMMP.C	536.7	668.0	315	- 2299.7	7.8
32.	{Model 27} – IMMB.C – IMMP.S	541.0	709.3	316	-2304.4	7.9
33.	${Model 27} - IMMB.C - IMMP.C$	554.6	696.4	316	-2290.8	8.0

 Table 2. Goodness-of-fit statistics for selected log-linear models applied to the full origin-by-destination-by-sex-by-country table: test of cross-sex and cross-national differences for Italian and US men and women, 1985

#### Interpretation of the Results

As we have seen in the previous section, the mobility regimes observed in Italy and the United States can be accounted for by a model according to which mobility propensities are a function of individuals' resources and preferences. More specifically, the proposed model posits that mobility propensities are the emergent product of the combined action of a small set of generative mechanisms formally

		Model				
Parameter	29	31	32	Prob. (%) ≠0	Bayesian est.	Bayesian s.e
SEI	•	•	•	100	0.001050	0.000067
IMMB	•	٠	٠	100	0.181	0.059
IMMP	•	٠	٠	100	0.925	0.123
IMMA	۲	٠	•	100	1.985	0.128
PROP	•	٠	•	100	0.441	0.052
AGRI	•	•	•	100	0.795	0.118
SEI.C(US)	•	•	•	100	-0.000443	0.000076
IMMB.C(US)		•		6	_	-
IMMP.S(Female)	٠	•		52	-0.335	0.113
IMMP.C(US)	٠		•	94	-0.509	0.109
Posterior Model Prob. (%)	46	6	48			
$2\log B_{10}$	11339.2	11335.1	11339.3			

 Table 3.
 Occam's Window analysis of the full origin-by-destination-by-sex-by-country table ( $\phi$ +1.65): Italian and US men and women, 1985

Note: for each model, a dot indicates the presence of the corresponding parameter.

 
 Table 4. Maximum likelihood estimates of selected parameters pertaining to the preferred log-linear model: Italian and US men and women, 1985

Parameter	MLE	s.e.	t-value
SEI	0.001070	0.000067	16.0
IMMB	0.169	0.039	4.3
IMMP	1.008	0.097	10.4
IMMA	1.979	0.127	15.6
PROP	0.446	0.052	8.6
AGRI	0.791	0.118	6.7
SEI.C(US)	-0.000465	0.000076	- 6.1
IMMP.S (Female)	-0.341	0.113	-3.0
IMMP.C(US)	-0.520	0.109	- 4.8

represented by the terms SEI, IMMB, IMMP, IMMA, PROP, and AGRI. Before analysing how the action of these mechanisms varies across subpopulations, it may be interesting to highlight the role they play in the structuring of mobility propensities within each sub-population. To this aim, first let

$$m_{ij} = \zeta^{SEI} \chi^{SEI}_{i} \chi^{SEI}_{j} + \gamma^{IMMB} v^{IMMB}_{ij} + \gamma^{IMMP} v^{IMMP}_{ij} + \gamma^{IMMA4} v^{IMMA4}_{ij} + \gamma^{PROP} v^{PROP}_{ij} + \gamma^{4} GRI v^{4}_{ij} GRI$$
(4)

denote the (expected) propensity that individuals originating from class  $O_i$  have for moving to desti-

nation  $D_{r}$ . If we calculate the variance of *m* we obtain a summary measure that expresses the overall degree of mobility chance inequality that characterizes the sub-population under consideration (cf. Goodman, 1991: 1089).<sup>23</sup> If we then partition this variance into its components, we are able to identify the relative weight of each mechanism in the generation of mobility propensities. Table 5 summarizes the results of this operation. As we can see, in every sub-population most of the variance in mobility propensities (between 78 and 90 per cent) is attributable to the SEI term, that is to the role played by general resources and objective desirability of classes. All the other terms make a much smaller contribution to the total variance, meaning that, overall, destination-specific resources and origin-specific preferences play a limited - though non-negligible - role in the shaping of mobility propensities.

To highlight the phenomenon of class inequality in terms of mobility propensities – or chances – let

$$\Theta_{jj*}^{ii*} = (m_{ij} - m_{ij*}) - (m_{i*j} - m_{i*j*})$$
(5)

denote the *competitive advantage* that individuals of origin  $O_i$  have over individuals of origin  $O_{i*}$  for moving to class  $D_j$  rather than to class  $D_{j*}$  (Goldthorpe *et al.*, 1987: 78).<sup>24</sup> If we re-express equation 5 in parametric form, we obtain:

	SEI	IMMB	IMMP	IMMA	PROP	AGRI	2ΣCov	Total		
Italian men	2.380	0.003	0.058	0.078	0.033	0.062	0.135	2.749		
Italian women	2.380	0.003	0.024	0.078	0.033	0.062	0.072	2.652		
US men	0.795	0.003	0.012	0.078	0.033	0.062	0.040	1.023		
US women	0.795	0.003	0.001	0.078	0.033	0.062	-0.004	0.968		

Table 5. Decomposition of variance in mobility propensities, by sub-population: Italian and US men and women. 1985

$$\begin{split} \Theta_{jj*}^{ii*} &= \zeta^{SEI}(z_{j}^{SEI} - z_{i*}^{SEI})(z_{j}^{SEI} - z_{i*j}^{SEI}) + \\ \gamma^{IMMB}(v_{jj}^{IMMB} - v_{jj*}^{IMMB} - v_{i*j}^{IMMB} + v_{i*j*}^{IMMB}) + \\ \gamma^{IMMP}(v_{ij}^{IMMP} - v_{j*}^{IMMP} - v_{i*j}^{IMMP} + v_{i*j*}^{IMMP}) + \\ \gamma^{IMM4}(v_{jj}^{IMMB} - v_{jj*}^{IMM4} - v_{i*j}^{IMM4} + v_{i*j*}^{IMM4}) + \\ \gamma^{PROP}(v_{jj}^{PROP} - v_{j*}^{PROP} - v_{i*j}^{PROP} + v_{i*j*}^{PROP}) + \\ \gamma^{4GRI}(v_{ij}^{4GRI} - v_{i*j}^{4GRI} - v_{i*j}^{4GRI} + v_{i*j*}^{4GRI}). \end{split}$$
(6)

As we can see, equation 6 states that as far as the access to the various occupational destinations is concerned, the upshot of the competition between any two origin classes is a function of both the amount of resources (general and destination-specific) available to the parties and the degree of desirability (objective and origin-specific) attributed to the alternatives at stake. Since general resources and objective desirability of classes account for most of the variation in mobility propensities observed in each sub-population (see above), for the sake of brevity here I will consider in detail only the role played by the SEI term.<sup>25</sup> Suppose that (a) individuals of origin  $O_i$  are endowed with a larger amount of general resources than individuals of origin  $O_{i*}$ ; and (b) destination  $D_i$  is objectively more desirable than destination  $D_i$ \*. It is easy to see that the magnitude of the competitive advantage  $\Theta_{ii*}^{ii*}$  is a function of three elements:

1. The greater the inequality between origin classes  $O_i$  and  $O_{i*}$  in terms of the amount of general resources available – represented by the difference  $(\chi_i^{SEI} - \chi_{i*}^{SEI})$  – the greater the inequality between these two classes in terms of 'buying power' and, therefore, the larger the competitive advantage enjoyed by individuals of origin  $O_i$  over individuals of origin  $O_i$  for moving to the more desirable destination.

2. The larger the 'exchange value' of general resources – represented by the association parameter

 $\zeta^{SEI}$  – the greater the inequality between the two origin classes in terms of 'buying power' and, therefore, the larger the competitive advantage enjoyed by individuals of origin  $O_i$  over individuals of origin  $O_{i^*}$  for moving to the more desirable destination.

3. Finally, the greater the 'distance' between the two alternative destinations in terms of objective desirability - represented by the difference  $(z_i^{SEI} - z_{i*}^{SEI})$  - the larger the competitive advantage enjoyed by individuals of origin  $O_i$  over individuals of origin Oi\* for moving to the more desirable destination. The reason for this can be summarized as follows. If two alternative destinations are characterized by identical degrees of objective desirability, then the difference between the benefits of moving to one and the benefits of moving to the other is perceived as insignificant i.e. the 'best' option does not exist. Evidently, in this case the choice between the two alternatives is random and, therefore, does not depend on the amount of general resources available to the decisionmakers. However, as the 'distance' between the two alternative destinations in terms of objective desirability increases, the choice between them becomes more and more consequential and, therefore, more and more affected by the 'buying power' available to the competitors.<sup>26</sup>

Figure 1 depicts some examples that may help to clarify the relationship between general resources and objective desirability of classes on the one hand, and class inequality in terms of mobility propensities on the other. The first example refers to Italy and illustrates the competitive advantage that the children of professionals have over the individuals originating from all the other classes for becoming a professional rather than a semi- or unskilled worker. As we can see, as we move from left to right along the horizontal axis the amount of



Competing Class of Origin

Figure 1. Effect of general resources and objective desirability of classes on class inequality in terms of mobility propensities: illustrative examples (see text for details).

general resources available to the various origin classes decreases (cf. note 12) and, consequently, the competitive advantage enjoyed by the offspring of professionals over their antagonists for accessing the more desirable destination increases.<sup>27</sup>

The second example is identical to the previous one, except that it refers to the United States. As we can see, in this case the slope of the relevant line is less steep than before, meaning that in this country the degree of class inequality in terms of mobility propensities is smaller. This is a consequence of the fact that the 'exchange value' of general resources – represented by the association parameter  $\zeta^{SEI}$  – turns out to be smaller in the United States than in Italy (cf. below).

Finally, the third example refers again to Italy but it portrays the competitive advantage that the sons and daughters of professionals have over the individuals originating from all the other classes for becoming a professional rather than a manager. In this case, the relevant line shows a very moderate slope because the two alternative destinations are not very dissimilar in terms of degree of objective desirability (76.9 and 65.4 respectively).

If we now shift our attention to the comparison between mobility regimes, first we can observe that the information reported in Table 5 corroborates the findings of previous research: (*a*) compared with the United States, Italy is characterized by a substantially higher degree of inequality in mobility chances;<sup>28</sup> and (*b*) within each country, women exhibit a slightly higher degree of social fluidity than men.<sup>29</sup>

The sources of these dissimilarities are highlighted in Table 6, which reports – for each of the four sub-populations under study – the log-linear effects exerted by the different generative mechanisms on mobility propensities. As we can see, there is a single source of cross-sex variation (i.e. the parameter  $\gamma^{IMMP}$ ) and two sources of cross-national variation (i.e. the parameters  $\zeta^{SEI}$  and  $\gamma^{IMMP}$ ). Conversely, the effects related to the two rural classes (represented by the parameters  $\gamma^{IMMA}$  and  $\gamma^{AGRI}$ ) and the effect of ownership of means of production (represented by the parameter  $\gamma^{PROP}$ ) vary neither by sex nor by country.

As far as sex differences are concerned, we can see that, in both countries, the effect of capital inheritance on immobility propensities is smaller for women than for men (0.59 vs. 0.925 in Italy, 0.081 vs. 0.416 in the United States), meaning that, on average, entrepreneurs, professionals, shopkeepers, artisans, and farmers prefer to pass their businesses on to

 
 Table 6.
 Log-linear effects exerted by generative mechanisms on mobility propensities, by subpopulation: Italian and US men and women, 1985

Effect	Italian men	Italian women	US men	US women
$\zeta^{SEI}$	0.00105	0.00105	0.000607	0.000607
$\gamma^{IMMB}$	0.181	0.181	0.181	0.181
$\gamma^{IMMP}$	0.925	0.590	0.416	0.081
$\gamma^{IMM.4}$	1.985	1.985	1.985	1.985
$\gamma^{PROP}$	0.441	0.441	0.441	0.441
$\gamma^{AGRI}$	0.795	0.795	0.795	0.795

their sons than to their daughters. To account for this difference, we may hypothesize that it reflects a particular mechanism of social closure – operating in both countries alike – according to which entrepreneurs, professionals, and the petty bourgeoisie favour sons rather than daughters in the intergenerational transmission of capital to restrict the access of other men (through marriage) to the family's business (cf. Schadee and Schizzerotto, 1990: 115).

As regards cross-national dissimilarities, two results emerge from the analysis:

- 1. The association parameter  $\zeta^{SEI}$  turns out to be the main source of cross-national variation in mobility regimes: as we can see, this parameter takes the value 0.00105 in Italy and 0.000607 in the United States. This means that the degree of inequality between any two origin classes in terms of general 'buying power' is - in log-linear terms -73 per cent larger in Italy than in the United States.
- 2. The intergenerational transmission of economic capital (represented by the parameter  $\gamma^{IMMP}$ ) exerts a stronger effect on immobility propensities in Italy than in the United States (0.925 vs. 0.416 for men; 0.59 vs. 0.081 for women).

As argued in the previous section, these crossnational dissimilarities can plausibly be attributed to the different ways in which such key institutions as the educational system and family operate in the two countries. Consistent with our expectations, the results of our analysis show that the effects exerted by some resources – expressly, general resources and family's business – on mobility chances are more intense in Italy than in the United States, meaning that the intergenerational transmission of social advantage and disadvantage is much more structured in Italy than in the USA.

## **Concluding Remarks**

The purpose of this paper was to carry out a comparative analysis of the intergenerational mobility regimes observed in Italy and the United States in the middle of the 1980s. To this end I have proposed a theoretical model according to which mobility propensities of individuals are a function of both the amount of resources (general and destination-specific) with which they are endowed and the degree of desirability (objective and subjective) they attribute to the different occupational destinations at stake. Such a model has been operationalized, translated into a hybrid log-linear model for frequencies, and fitted to the pertinent mobility tables.

The analysis has shown that the proposed model offers a plausible account of the mobility regimes observed in all four sub-populations under study. At the micro-level, there is enough evidence to maintain that, on the whole, the same mechanisms underlie the mobility propensities exhibited by Italian and US men and women. Particularly, general resources and objective desirability of classes appear to play the most prominent role in the structuring of mobility propensities.

However, the analysis has also shown that the intensity with which some mechanisms operate depends much on the institutional and cultural context in which actors are embedded. In this regard, it has been shown that while cross-sex differences are very modest, cross-national dissimilarities are quite pronounced. Expressly, the overall degree of class inequality in terms of mobility propensities – or chances – is considerably higher in Italy than in the United States, due to the higher 'exchange value' of general resources and family's business. It has been argued that such a dissimilarity stems from three main sources:

- (a) family resources exert a more pervasive and persistent influence on children's mobility propensities in Italy than in the United States;
- (b) the access to the education system is more universalistic and egalitarian in the United States than in Italy, so that the children of the lower

classes have a much better chance of using education as an upward mobility channel in the former than in the latter country;

(c) the socioeconomic return to educational credentials is higher in Italy than in the United States, which increases further the crossnational difference in the indirect effect of social origin on mobility chances.

### Notes

- Respondents' classes of destination are derived from their current or most recent (with respect to the time of the interview) occupation. On the other hand, respondents' classes of origin are based on the occupation their father or father substitute held while they were growing up.
- 2. As Hout (1988: 1367–1369) has convincingly argued, treating a small number of consecutive General Social Surveys as a single, internally homogeneous data-set is an acceptable procedure in the analysis of mobility processes. For the sake of simplicity, throughout this paper I will treat the US data-set as if it pertained to a single survey carried out in 1985.
- 3. In this paper I will use the expression 'mobility' regime' to denote the 'genotypical pattern of mobility' (Featherman *et al.*, 1975) or, equivalently, the 'pattern of social fluidity' (Erikson *et al.*, 1982). Consequently, in the analyses that follow the distributions of origins and destinations will be treated as exogenous components of the model.
- 4. In the literature on social mobility, it is common practice to talk of 'chances of moving' rather than of 'propensities for moving'. It seems to me that the first expression is more likely to evoke the constraints on action, whereas the second puts more emphasis on the fact that actors choose among different options. At any rate, in this context both terms denote the same concept; therefore, throughout this paper they will be used interchangeably. Also, it should be borne in mind that, given the definition of the explanandum, the mobility propensities or chances in question are considered net of the effects exerted by the distributions of origins and destinations (cf. n. 3).
- A similar distinction between general and specific resources for mobility has been made by Yamaguchi (1983: 719–720).
- It is opportune to point out that the system of resources attributed to each class should be regarded as an average – or macro – property of the class itself.

- 7. As in the case of resources, the system of preferences attributed to each class should be regarded as an average property of the class itself.
- 8. As Erikson and Goldthorpe (1985, 1992: ch. 9) have observed, the thesis that US society is characterized by exceptionally high rates of social mobility may be traced back to such classical authors as Tocqueville (*Dela démocratie en Amérique*, 1835), Marx (*Der achtzehnte Brumaire des Louis Napoleon*, 1852) and Sombart (*Warum gibt es in den Véreinigten Staaten keinen Sozialismus?*, 1906). More recently, the thesis of American 'exceptionalism' has been sustained, among others, by Treiman (1970), who has argued that the United States is characterized by a higher degree of social fluidity than other advanced societies because of its greater emphasis on achievement values, a more open educational system, and more recent and rapid industrialization.
- 9. The following constraints apply:

 $\omega_1 = \psi_1 = 0$ 

- The formulation of this model owes much to the 10. works of five scholars: Raymond Boudon (1973), who introduced generative modelling into mobility studies; John H. Goldthorpe (Goldthorpe et al., 1987), who made the first attempt to develop a generative model for the explanation of mobility regimes and to translate it into a log-linear model (cf. Pawson, 1989, 1993); Michael Hout (1984), who introduced theoretically informed association models and disclosed the link between such models and mobility propensities; and Richard Breen and Christopher T. Whelan (1993, 1994; Breen, 1987), who clarified the interpretation of origin and destination scores in terms, respectively, of general resources and class desirability.
- 11. The choice to express general resources and objective desirability of classes in terms of the Duncan SEI reflects the well-established finding that 'the main determinant of the probability of exchange between [occupational classes] is their similarity with respect to socioeconomic status. The explanation for this finding is that the socioeconomic status of occupations is a good proxy for the myriad of resources that promote the intergenerational transmission of advantage, and also for the extent of advantage gained' (Ganzeboom et al., 1991: 289). Moreover, the mean Duncan SEI scores assigned a priori to the various classes have proven to be highly correlated with the class scores estimated a posteriori from the data using Goodman's homogeneous quasi-association model II (Goodman, 1979).
- 12. Class scores are as follows: entrepreneurs (63), professionals (76.9), managers (65.4), skilled white-collar

workers (59.2), semi- and unskilled white-collar workers (50.2), urban petty bourgeoisie (26), skilled workers (31.9), semi- and unskilled workers (16.2), agricultural petty bourgeoisie (16), agricultural workers (8.2). These scores have been computed using the information contained in the US data-set; therefore, they properly represent only the US situation. However, preliminary analyses (not reported here) have shown that such scores also offer an adequate representation of class inequality when applied to the Italian case (cf. Pisati, 1994: ch. 5).

- 13. The intensity of the effect of capital inheritance on the propensity to remain in the entrepreneurial class is assumed to be relatively higher because for this class the amount of resources at stake is likely to be higher than in the other cases.
- 14. The intensity of the effect of ownership of means of production on the propensity to move between the urban and the agricultural petty boureoisie is assumed to be relatively lower because these two classes pertain to different sectors of activity.
- 15. Formally, both the set of explanatory variables included in the log-linear model and the values assigned *a priori* to such variables are held constant across sub-populations.
- 16. Similar reasoning applies to all the other mechanisms.
- 17. In other words, the present study does not lend itself to multi-level analysis.
- This particular cross-national difference may also hint that US society puts greater emphasis on achievement values and meritocracy than Italian society does.
- All the models are expressed by means of the Wilkinson-Rogers notation (Wilkinson and Rogers, 1973).
- The procedure has been implemented using GLIB, an S-Plus function written by Adrian Raftery and available from StatLib (cf. Raftery and Richardson, 1995).
- 21. In this respect, it is opportune to make some observations. As shown in Table 2, according to the classical rules of statistical inference Model 29 fails to fit the data (at  $\alpha = 0.05$ ). However, the large and negative value taken on by BIC indicates that such a model is to be preferred to the saturated model. Furthermore, the examination of Pearson standardized cell residuals has shown that (a) no meaningful pattern underlies the lack of fit, and (b) most of the cells that exhibit lack of fit have very small expected frequencies. Thus, although chisquare statistics suggest that additional mechanisms - i.e. mechanisms not included in the preferred model - may have concurred to generate the intergenerational mobility regimes observed in

the four sub-populations under analysis, there are good reasons to maintain that such mechanisms have played only a marginal role, and one that is difficult to interpret. Not only is there no explicit indication that key mechanisms have been neglected, but also the observed data offer strong evidence in favour of the existence of all the mechanisms hypothesized by the preferred model. In the first place, all of the parameter estimates that represent social fluidity are significantly different from zero and have the expected sign (cf. Tables 3 and 4). Secondly, several tests have shown that the inclusion in the model of additional ad hoc parameters - chosen so as to maximize the improvement of fit - does not significantly affect the estimates of the parameters that make up the preferred model.

- 22. The Bayesian estimate of a given parameter coincides with the mean of its full posterior distribution, while the corresponding Bayesian standard error equals the standard deviation of such a distribution (Raftery, 1995).
- 23. Formally:

$$Var(m) = \frac{\sum_{i=1}^{l} \sum_{j=1}^{J} (m_{ij} - \bar{m})}{II},$$

where

$$\bar{m} = \frac{\sum_{i=1}^{I} \sum_{j=1}^{J} (m_{ij})}{IJ}$$

- 24. This measure corresponds to the classical log-odds ratio.
- 25. In other words, I will consider the special case in which  $\Theta_{jj*}^{ij*} = \zeta^{SEI}(z_j^{SEI} z_{j*}^{SEI})(z_j^{SEI} z_{j*}^{SEI})$ .
- 26. One anonymous reviewer pointed out that the proposed model appears too 'linear'. In particular, he/ she observed that (a) the rational calculus that underlies occupational choice may be different for individuals from different social origins; and (b) likewise, the class of origin may substantially affect the degree of desirability attributed to the various destinations, due to 'information failure' and adaptive preferences. In this regard, a few observations can be made. First, the proposed model does include, here and there, several non-linearities. As explained in the third section, such non-linearities account for the role of both destination-specific resources whose availability increases individuals' capability of 'buying' particular occupational destinations - and origin-specific preferences. In particular, the

presence of the latter indicates that the 'distorting' effects exerted by information failure and/or adaptive preferences on the objective desirability of classes has not been overlooked. Secondly, the observed data show that, within the preferred model, most of the variation in mobility propensities is accounted for by its 'linear' component, i.e. by general resources and objective desirability of classes (cf. Table 5). Although the lack of fit that characterizes some cells does hint that origin-specific preferences may play a more prominent role than that implied by the proposed model, this evidence clearly indicates that the degree of desirability individuals attribute to the various destinations does not depend much on their class of origin, at least on average. This is the last point worth noting: as mentioned in nn.6 and 7, the system of resources and the system of preferences attributed to each class should be regarded not so much as exact characteristics of its individual members, but rather as average properties of the class itself. By the same token, the mobility propensities attributed to the members of each class should be taken as an average property of that class. The actual mobility choice made by each distinct individual, then, should be regarded as a function of his/her average class resources and preferences plus the unobserved resources and preferences that are peculiar to him/her and, in the model, represent the random component (cf. Manski, 1981).

- 27. On the one hand, the competitive advantage enjoyed by the children of professionals over the children of managers is rather modest (0.73), since the 'distance' between these two classes in terms of amount of general resources available is relatively small (76.9 - 65.4 = 11.5). On the other hand, when the children of professionals are compared with the children of agricultural workers – i.e. the class characterized by the smallest amount of general resources – the competitive advantage enjoyed by the former over the latter jumps to 4.38 (79.8 in multiplicative terms).
- 28. If we look at the total variance in mobility propensities, we can see that it takes values 2.749 for Italian men, 1.023 for US men, 2.652 for Italian women, and 0.968 for US women.
- 29. Cf. previous note.

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				ltalian Me	n							
Class of origin	Class of destination											
	Ε	Р	Μ	SWC	UWC	UPB	SW	UW	APB	AW		
Entrepreneurs	19	4	6	13	1	14	11	15	8	0		
Professionals	1	15	3	5	0	0	1	1	0	0		
Managers	1	11	4	13	2	0	5	2	0	0		
Skilled wc workers	1	12	11	36	9	3	11	5	1	0		
Semi- and unskilled wc	1	2	8	20	15	4	15	11	0	0		
Urban petty bourgeoisie	8	10	13	44	30	110	50	46	6	4		
Skilled workers	7	8	11	72	37	40	108	58	1	1		
Semi- and unskilled	8	3	12	40	23	56	98	93	2	2		
Agric. petty bourgeoisie	5	1	10	27	19	59	92	73	76	10		
Agricultural workers	2	1	1	12	9	30	51	62	6	42		

### **Appendix: Mobility Tables**

#### MAURIZIO PISATI

			It	alian won	nen							
Class of origin	Class of destination											
-	Ε	Р	Μ	SWC	UWC	UPB	SW	UW	APB	AW		
Entrepreneurs	13	0	1	24	9	5	3	19	5	4		
Professionals	0	2	1	5	3	0	0	0	1	0		
Managers	1	3	1	28	1	4	0	3	0	0		
Skilled wc workers	0	7	1	44	7	11	1	10	0	0		
Semi- and unskilled wc	2	1	1	22	14	4	0	7	0	0		
Urban petty bourgeoisie	4	5	0	66	20	32	5	47	6	4		
Skilled workers	2	3	2	67	31	27	14	98	0	1		
Semi- and unskilled	2	0	0	43	27	41	11	166	2	7		
Agric. petty bourgeoisie	5	3	0	25	14	31	7	92	46	13		
Agricultural workers	1	0	0	8	3	15	5	52	4	28		

				US men								
Class of origin	Class of destination											
-	Ε	Р	Μ	SWC	UWC	UPB	SW	UW	APB	AW		
Entrepreneurs	21	26	16	20	10	13	23	24	0	2		
Professionals	10	55	15	42	18	7	18	14	2	0		
Managers	8	23	27	20	15	9	17	20	2	1		
Skilled wc workers	8	25	23	31	14	4	24	23	1	2		
Semi- and unskilled wc	4	15	15	22	25	2	26	18	1	0		
Urban petty bourgeoisie	13	14	10	20	15	14	39	32	4	1		
Skilled workers	17	53	55	67	33	36	146	135	2	3		
Semi- and unskilled	13	42	37	38	26	29	151	145	5	3		
Agric. petty bourgeoisie	15	17	25	24	15	21	58	74	59	6		
Agricultural workers	1	0	0	0	4	6	8	25	1	2		

US women											
Class of origin	Class of destination										
-	Ε	Р	Μ	SWC	UWC	UPB	SW	UW	APB	AW	
Entrepreneurs	9	17	9	63	40	17	9	16	0	0	
Professionals	4	29	17	69	38	6	6	12	2	0	
Managers	2	12	15	55	44	9	7	19	1	0	
Skilled wc workers	9	13	18	50	51	4	9	16	0	0	
Semi- and unskilled wc	1	12	7	40	39	3	2	17	0	0	
Urban petty bourgeoisie	2	8	7	56	48	9	8	33	1	0	
Skilled workers	6	32	36	150	184	21	39	118	1	1	
Semi- and unskilled	7	24	24	110	158	36	35	172	0	0	
Agric. petty bourgeoisie	11	13	15	79	82	19	15	114	3	3	
Agricultural workers	0	2	3	7	9	2	4	30	0	1	

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