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Residence and Autonomy in Postcolonial Maharashtra

par

Étienne Breton

Département de démographie

Faculté des arts et des sciences

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présenté par :

Étienne Breton

a été évalué par un jury composé des personnes suivantes :

Thomas K. Legrand

président-rapporteur

Solène Lardoux

directrice de recherche

Karine Bates

codirectrice de recherche

Michel Verdon

membre du jury

Résumé

Ce mémoire de maîtrise propose une réévaluation de la question désormais centenaire de la « fission » ou « nucléarisation » du ménage joint hindou (MJH). En utilisant la perspective dite « atomiste » développée par Michel Verdon (1998), nous jetons les bases d'une nouvelle modélisation de la formation et de la composition des ménages au Maharashtra postcolonial. Le mémoire sera divisé en quatre sections. La première introduit les principaux éléments de la perspective « atomiste », qu'elle opposera, dans la seconde section, aux axiomes « collectivistes » et aux explications « culturalistes » généralement rencontrés dans l'analyse ethnographique des ménages en Inde occidentale. La troisième section fournit une application qualitative de la perspective atomiste, et ce, en dressant un bref portrait ethnographique du ménage au Maharashtra pour les trois décennies suivant l'indépendance de l'Inde. La quatrième section offre une application statistique de la perspective atomiste en utilisant des données socioéconomiques et sociodémographiques rassemblées dans cinq rondes des *National Sample Surveys* (NSS) indiens; combinant nos hypothèses atomistes avec les « taux d'autonomie résidentielle » développés par Ermisch et Overton (1985), nous quantifions les tendances et divers déterminants de la composition des ménages au Maharashtra durant les années 1983 à 2004. Nos résultats ne montrent aucun signe d'une nucléarisation du MJH durant les années couvertes par les NSS, et indiquent qu'il s'est même produit une intensification de la subordination résidentielle et domestique des jeunes couples basés au Maharashtra entre 1993 et 2004.

Mots-clés : India; Maharashtra; ménages; formation des ménages; typologie des ménages; interactions intra-residentielles; famille; famille jointe hindoue; changement social; démographie sociale.

Abstract

This M.Sc. thesis offers a reappraisal of the century-old issue of the 'fission' or 'nuclearization' of the *hindu joint household* (HJH). Using Michel Verdon's 'atomistic perspective' (1998), we provide a new modelling of household formation and composition in postcolonial Maharashtra. The thesis is divided into four major sections. In the first section, we introduce the main lineaments of the 'atomistic' perspective and we oppose it, in the second section, to the 'collectivistic' set of axioms and the 'culturalist' explanations generally used in ethnographic analyses of household formation and composition in Western India. In the third section, we apply Verdon's atomistic framework by presenting a brief qualitative portrait of the household in Maharashtra for the first three decades after India's independence. The fourth section offers a statistical application of the atomistic perspective using socioeconomic and demographic data available in five separate samples of India's *National Sample Surveys*; combining atomistic hypotheses with Ermisch and Overton's (1985) 'loneship ratios', we quantify the effects of several determinants of residential autonomy and household composition in Maharahstra for the years 1983-2004. Our results show no sign of a nuclearization of the HJH in Maharashtra, and indicate that there was even a rise in the residential and domestic subordination of young Maharashtrian couples from 1993 to 2004.

Key words: India; Maharashtra; household; household formation; household typologies; intra-household relationships; family; hindu joint family; social change; social demography.

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Introduction

In India, studies on the *household* have often been confounded with studies on the *family*. For this reason, we must first declare that the general aim of this thesis is to readdress, though in quite different terms, the question of the fission or nuclearization of the hindu joint *household* (HJH). While we acknowledge that household typologies and the very concept of 'household' raise some serious theoretical issues (most of which are summarized in Netting et al. (1984)), we are here forced to adopt somewhat incomplete definitions for the purpose of introducing the topic in the next paragraphs. We will momentarily define the household as a group of individuals domiciled in a common, identifiable dwelling unit; we will label 'joint' (i.e., the HJH) any household including two or more patrilaterally related couples and 'nuclear' any household composed of only one married couple and their dependent children.

One of the first statements on the fission of the HJH can be found in Sir Edward Gait's report on the Census of India of 1911. While Gait thought he had discerned the signs of an ongoing nuclearization of the traditional hindu joint *family*, he was in fact referring to a then surprisingly low average number of individuals per *household* and to a high proportion of nuclear *households* in the whole Indian population – to the likes of those observed in England (Gait 1913; in Caldwell et al. 1988: 108). But the imprecision was not merely conceptual. Half a century later, new data has shown that Gait's diagnosis was amiss (Orenstein 1961): households in 19th century India were no more populous than they were in the first decades of the 20th century. In fact, the whole country even experienced a rise in average household size until 1981 (Shah 1998b: 59-66). As for data

on household types, many authors contended that the presence of a large proportion of nuclear households in the population was not necessarily a sign of the nuclearization of the HJH (e.g. Goode 1970: 2; Uberoi 1993: 384-385). More precisely, Shah argued that households are always embedded in a 'developmental process' (A concept which slightly differs from Fortes' 'development cycle' (1958)). in which they gain or lose members, but that these additions and subtractions of members do not induce discontinuity between household types: a nuclear household may soon become a HJH with the marriage of one of its sons, just as a HJH may soon become nuclear with the death of the household head and the residential separation of his sons and widow (Shah 1998b). Concurrently, Gould (1968) highlighted the need for a more dynamic modelling of household structure (A concept which we equate with that of 'household composition') in India; only then could one distinguish a 'meaningful change' in household types from a casual replacement of household members attributable to a 'normal' developmental cycle or developmental process.

Therefore, even if we stick by Gait's equivocal indicators, we cannot conclude that the HJH has nuclearized in the last two centuries. The numbers would rather depict a situation of relative stability in the size of households, and even of upward trend in the proportion of HJHs (Shah 1998a: 3). This realization could have suggested the need to formulate a new set of axioms and inquiries. The perennial question 'how and why is the HJH nuclearizing?' could have given way to its inverse, that is, 'how and why is the HJH surviving?'. Delving into the literature, we find instead that the presence of HJHs is taken to be culturally given and, from an epistemological standpoint, is not deemed problematical.

This standard of explanation dates back to the 'indological phase'[1] in the study of the Indian family. In many of these classic writings (e.g. O'Malley 1934; Srinivas 1952; Ross 1961; Gore 1968), the ideal-type joint household was described as a component of the ideal-type joint family; amid the many functions and principles governing joint family life were some functions and principles binding family members together in a single household. Many detailed descriptions of family life and kinship structure in India were then produced, some reaching nearly encyclopedic proportions (e.g. Karve 1965). But despite their impressive ethnographic range, these structural-functional representations of the Indian family were plagued by two major epistemological flaws; not only did they deflate the household to a state of epiphenomenon of family norms, they often relied upon teleological arguments to adduce that HJHs were somewhat inherent to India's traditional familial system.

Let us illustrate this attitude by briefly revisiting one of the first analyses on the family in urban India. In a schematization relying upon an orthodox structural-functional framework, M.S. Gore examined the determinants of traditional family norms in India. In its simplified version, his model associated four 'Functional Requirements of the Joint Family as a System' to twelve 'Institutionalized Patterns Facilitating Their Fulfilment' (1968: 33-35). Gore could hardly be more explicit in his effort to link a given set of 'functions' to another set of 'structures' or 'norms'. Yet, the presence of a given set of norms/structures cannot be explained solely by highlighting the functions these norms allegedly performs, if only because functions are always established in reference to a

[1] 'Indological' here refers to the field of study known as 'Indology', which we could define as a branch of 'Orientalism' since it is devoted to the study of the cultures of the Indian subcontinent. The field can also be designated as 'Indian Studies' or 'South Asian Studies', while 'Indologists' themselves are often being referred to as 'Indianists'.

given normative/structural context (see Verdon 1991 for a lengthier demonstration on this point). In short, norms can explain functions just as much as functions can explain norms. Regarding Gore's model, one could even argue that the 'functional requirements' of the hindu joint family are teleologically dependent its 'institutionalized patterns'. In theory, another set of 'institutionalized patterns' could very well satisfy the 'functional requirements' of the joint family (there is no 'intrinsic link between the two) but, in practice, the 'institutionalized patterns' themselves provide the framework inside which the 'functional requirements' can be defined. As a result, we argue that Gore's structural-functional model of the HJH, as well the abundance of indological representations so conceived, teleologically posited the presence of the HJH more than they actually explained it.

Regardless of how the presence of the HJH was exactly posited, it meant that the presence of nuclear households then had to be accounted for. Even during the period covered by classic indological works, empirical data made it clear that nuclear households were abundant in India. Moreover, the so-called modernization of India led many authors to assert that the HJH, even if it had not yet nuclearized as Gait had anticipated, was indeed about to give its way to a dominant, westernized, nuclear household. Following the authors of the indological phase, sociologists and anthropologists of the 'social change' phase in the study of the Indian family sought to ascertain this 'modernization hypothesis' with new types of explanations. However, they kept trying to explain household formation and composition in terms of factors explaining the fission of the HJH – even if they were to clarify that the HJH was

apparently stable. Despite their shared scepticism of indological accounts, the divergences between 'social change' authors were numerous.

Influential among these writers was Goode (1970), who argued that the industrialization and urbanization of India would result, among other consequences, in an increasing proportion of neolocal and nuclear households. However, he himself admitted that the data then available on the matter did not show any clear trend that would corroborate his view. He perceived the lack of nuclearization as a 'lag' attributable to India's modest levels of industrialization and urbanization, whereas Conklin concluded that "there is no empirical evidence to show that a joint family could not provide a good adaptive vehicle for solving the problems of urbanization or industrialization" (1973: 748)[2]. At any rate, Conklin demonstrated that the HJH could also be considered as a 'good fit' to the everyday necessities of modern India, even if the permanence of household composition came at the cost of radical changes in intra-household relationships – changes brought about by education and literacy, most notably. Likewise, Caldwell et al. wrote that India was and would continue to be characterized by a 'stem family system' designed to ensure to care of the elderly (1988: 130). In short, disagreements between 'social change' authors were founded on different sets of residential 'needs and responses' entailed by the modernization of India. Yet, as was to become clear, these diverging hypotheses were built on a common ground.

[2] Here, Conklin uncovered another teleologically tainted formulation of the structural-functional type, since there is no intrinsic link to be found between the emergence of the nuclear household and the necessities of modern life (e.g. salaried work, labor movements and specialization, etc.). Because they allow for economies of scale, extended households can easily be considered as 'well adjusted' to advanced industrial economies, especially during harsh economic times (e.g. Angel and Tienda 1982).

Perhaps the foremost analyst of the household in India, A. M. Shah (1974, 1998, 1999, 2005) argued that Indian households were formed around the normative '*principle of the residential unity of patrikin and their wives*' (PRUPW), and was the most explicit in stating that studies on Indian households should primarily be concerned with "the measurement of the conformity to and deviation from this principle" (1974: 16). But whereas conformity to a norm hardly demands an explanation, deviation from a norm has to be accounted for. In other words, the presence of households that did not abide by the above principle (these are nuclear households, single parent households, single adult households, etc.) called for an explanation, whereas that of HJHs did not since it was presupposed by the PRUPW. While Shah's ideas may not appear very distant to those of his predecessors, one of his main achievements was nevertheless to evacuate the teleological references usually made to posit the presence HJHs in India. In establishing the PRUPW as the starting-point of his analysis, Shah replaced (perhaps unconsciously) a teleological assumption with a plain and unequivocal *axiom*. Viewed in this light, one could say that Shah clarified and simplified what was implicitly established in earlier studies.

But instead of prompting a renewal in the study of Indian households, Shah's work rather seems to have marked the end of an era. His many theoretical specifications (we will examine them in the next sections), most of which dated from his 1974 ethnography, were part of the last notable theoretical impulse in the study of household formation and composition in India. Patel wrote that the Indian family "has received somewhat inadequate attention in comparison with the 1950s, 1960s and 1970s" (2005: 22). In subsequent works still centered around issues of household formation and

composition, authors have mostly tried to substantiate and synthetize the main lines of argument of Shah and his predecessors (e.g. Uberoi 1993; Patel 2005), or have tried to verify similar hypotheses with new survey data (e.g. Hill 1982; Caldwell et al. 1988; Ram and Wong 1994; Chakrabortty 2002; Niranjan et al. 2005). The results of these analyses often were contradictory, if only because they were buttressed by different definitions of household types.

Other recent studies have modelled household formation and composition as causes rather than as effects. These have concentrated most notably on issues of social demography such as women's autonomy and its impacts on fertility and sex ratios (e.g. Dyson and Moore 1983; Das Gupta et al. 2003; Chakraborty and Kim 2010; Banerji and Vanneman 2011) or the influence of living arrangements on the health of the elderly (e.g. Cain 1986; Dharmalingam 1994; Bhat and Dhruvarajan 2001; Rajan and Kumar 2003; Sen and Noon 2007; Husain and Ghosh 2010; Pal and Palacios 2010). There are also works which have shifted the focus of analysis on 'processes' of household dynamics rather than on household 'structures', thereby downplaying the dichotomy between joint and nuclear households while emphasizing the plurality of residential realities and trajectories in India[3]. For instance, the growing literature on gender issues has successfully (and rightly) promoted a less 'unitary' view of the Indian household (e.g. Agarwal 1994: 3) by emphasizing inequalities, conflicts, diverging interests or patterns of domination taking place inside households.

Needless to say, these more recent trends, far from having elucidated the mechanics of the nuclearization or permanence of the HJH, have rather left the issue

[3] See D'Cruz and Bharat (2001) for an extensive review of this literature.

aside. And what is more, they often took the presence of the HJH for granted in the very same way Shah and earlier authors did. In other words, the amount of work built on this tacit consensus justifies the need to examine it once again.

Departing from previous views, we offer a reappraisal of the so-called fission of the HJH. In short, we believe that nuclear households in India were inadequately apprehended; we hold that the *explanandum* of analyses on household formation and composition in India has to be the presence and relative stability of the HJH over time. For this period, we will need to develop a new typology of household types and, more importantly, to establish a new set of axioms about household formation in India. To our knowledge, only Michel Verdon's 'atomistic' framework allows for such an undertaking, as it is also the direct inspiration of the present paper. Thus, our objective is to provide a qualitative *and* a statistical application of Verdon's framework for Indian households. Instead of engaging this task for India as a whole, which would be almost unfeasible given the country's overwhelming diversity, we will confine ourselves to Western India, with a more specific focus on the state of Maharashtra. We shall limit the scope of our inquiry to the period following India's independence, which we will label as 'postcolonial'.

The thesis will be divided into four major sections. In the first section, we introduce the main lineaments of Michel Verdon's 'atomistic' perspective; these can be retrieved more comprehensively in Verdon's *Rethinking Households* (1998), in which the author is primarily concerned with European households. In the second section, we expose the 'collectivistic' set of axioms and the 'culturalist' explanations frequently used in ethnographic analyses of household formation and composition in Western India. In

the third section, we apply Verdon's atomistic framework by presenting a brief qualitative portrait of the household in Maharashtra for the first three decades after the independence, a period of time when ethnographical data on Indian households was most detailed. The fourth section offers a statistical application of the atomistic perspective using socioeconomic and demographic data available in five separate samples of India's *National Sample Surveys* (NSS); combining atomistic hypotheses with Ermisch and Overton's (1985) 'loneship ratios', we will try to quantify the effects of the various determinants of residential autonomy and household composition in Maharahstra for the 1983-2004 period.

Let us finally emphasize that the argument presented in this thesis is primarily prospective: it suggests an alternative framework to synthesize qualitative and quantitative modelling on the subject of the Indian household, but does not formally realize this synthesis, as we believe it could only be elaborated with additional (and more recent) data from an ethnographic fieldwork and a longitudinal survey.

1. Michel Verdon's 'Atomistic' Perspective

In the same way that an approach based upon the characteristics, propensities and interactions of individuals could be labeled 'individualistic', the atomistic approach is centered upon the characteristics, propensities and interactions of 'residential atoms'. Verdon uses the concept of *household* as a synonym of his own concept of *residential group*. A residential group is a unifunctional group formed around the activity of residence, where "residence consists in occupying part or all of a dwelling-place in an exclusive manner, regularly or intermittently, for the purpose of sleeping" (1998: 37)[4].

Residential groups, however, are not monolithic entities. Studies are profuse with cases of conflicts in which the internal divisions of households are exposed. But if intra-household dynamics cannot be presumed to exist in a state like the one suggested by the concept of the 'unitary household' (e.g. Agarwal 1994), it also cannot be reduced to the interactions happening between the household's individual members[5]. In other words, Verdon's objective was to build a typology that integrates intra-household power relationships, but that does not reduce the household to an epiphenomenon of interindividual interactions. Accordingly, he argued that he could decompose households into minimal residential units (MRUs), or atoms. Drawn directly from an article by Ermisch and Overton (1985), MRUs are defined as "collections of individuals whose coresidence is unproblematical [or axiomatic] within a given culture" (1998: 53). Five types of MRUs can be found in European households: 1) a single adult; 2) a single

[4] For details on specific criteria of membership of residential groups, see Verdon 1998: 43-46.
[5] Verdon offers an insightful demonstration on how such a reduction deflates the household to the state of mere epiphenomenon (1998: 24-34). A lengthier demonstration on the need to extirpate (conceptually) the group from its interindividual interactions can be found in Verdon 1991.

mother with her dependent children (a 'matricell'); 3) a single father with his dependent children (a 'patricell'); 4) a couple without dependent children; 5) a couple with dependent children.

Yet, the sole delineation of MRUs is not sufficient to account for power relationships happening inside the household. For his approach to be properly atomistic, Verdon needed to insert MRUs within a set of axioms that would address their interactions in household dynamics. His demonstration rests upon a universal, socio-psychological axiom *rooted in individuals*, stating that "'normal' adults, men or women, prefer not to be bossed around in their economic and/or domestic activities, and wish to control the running of their everyday life" (Latreille and Verdon 2007: 71). Notwithstanding its individualistic roots, this axiom will affect the interactions taking place between cohabitating MRUs. For instance, a young spouse's desire for independence against her controlling mother-in-law may result in conflicts opposing the former's MRU (the young couple) against the latter's MRU (the old couple). Thus, Verdon passes from an axiom on 'individual propensities' to an axiom on 'MRU propensities', and posits that MRUs axiomatically desire their domestic and economic autonomy[6]. He will define *domestic autonomy* as the MRU's ability to control the management of its domestic activities, while *economic autonomy* concerns the MRU's ability to control its own labor and resources (2007:72)[7].

[6] While power relationships are treated, conceptually speaking, as relationships between MRUs, they are "often lived as interpersonal relationships" (1998:47). Verdon's decision to treat them as such should be seen as a conceptual maneuver to enable fruitful comparisons and not as an attempt to describe reality from an 'emic' standpoint (55).

[7] Economic autonomy should not be confused with economic self-sufficiency.

Observation reveals that in Europe, where houses are generally owned or rented individually (as opposed to corporate or joint ownership), to reside in one's house exclusively or in a superordinate position usually entails domestic and economic autonomy. Hence, Verdon postulated the axiom of the propensity of any MRU toward *residential autonomy*, defining it as a situation where a MRU "has a sole occupancy of a dwelling-unit or part of a dwelling-unit that it owns, or in which (or a portion of which) it has a right to reside because it pays a rent" (1998 : 54). In Europe, MRUs seek residential autonomy because it is a *necessary* and by and large a *sufficient* component of their domestic and economic autonomy[8].

From an epistemological standpoint, it follows that the presence of only one MRU in a household does not require any explanation: it is 'presupposed' by the axiom of residential autonomy. However*, the coresidence of several MRUs within a household is deemed problematical and requires an explanation*. These explanations, Verdon states, are to be built in terms of forces and/or hindrances constraining certain MRUs to coresidence. *Forces* are defined as coercive measures, often of intra-residential origin, binding a MRU to coresidence into a subordinate position (e.g. the threat of disinheritance by a senior couple or a patriarch). *Hindrances* are usually extra-residential constraints that restrain MRUs from accessing their residential autonomy (e.g. unfavorable economic context, unemployment, aging and widowhood, the unavailability of resources to build a decent house, etc.).

[8] It is important to note that while subordinated MRUs will shy from coresidence for all the previous reasons, superordinated MRUs often have other reasons to look for it (for the pleasures of ordering others around, or to make sure that they receive care and support in their old days, etc.).

As we mentioned, this new set of axioms also impacts on the delineations of household typologies. Since the length of the present thesis does not allow for many specifications, we shall mainly retain the distinction made by Ermisch and Overton (1985) between *simple* households, in which only one MRU resides, and *complex* household, in which two or more MRUs reside. When studying Indian households, then, how are we to define the HJH? After all, the existing literature does allow for an abundance of definitions (Kolenda 1970). As suggested in the introduction, the HJH will here be defined by the coresidence of at least two patrilaterally related couples (MRUs of type four or five). Throughout the paper, they will also simply be referred to as 'complex households'.

An atomistic typology must finally distinguish different types of complex households on the basis of their respective power configurations. For example, a HJH may comprise two MRUs related vertically, but the vector of power can flow in three directions between them. The dominant MRU may be the parental couple (e.g. the patriarch being the individual owner of the family's household and land) or the younger couple (e.g. because the ageing parents are disabled and need support). In the former case, we speak of a HJH with a downward vector of power; the latter is a case of a HJH with an upward vector of power. If the coresidence between the two MRUs was to be relatively equalitarian, we would have a HJH with a horizontal vector of power. Thus, we can now find three different types of HJHs, although these have an identical household composition.

Verdon exemplified possible variations in the axioms of the atomistic approach outside Europe. The penultimate chapter of *Rethinking Households* offers an atomistic

analysis of the household in Abutia villages in Eastern Ghana, where Verdon conducted an ethnographic fieldwork in the early 1970s. The Abutia residential logic was quite different from the European one; notably, the coresidence of spouses was deemed problematical, owing in part to economic transformations dating back from the 1920s. Latreille and Verdon's (2007) article in the Middle East and North Africa (MENA) also exhibited a set of axiom slightly different than the one applied in Europe. Thus, if the axioms of the atomistic approach can vary in space and in time, how are we to define them adequately for the postcolonial Maharashtra? The data required to examine this issue can hardly be obtained in the Indian censuses or other statistical sources, whereas it can be found more readily in qualitative or ethnographic sources.

2. The Collectivistic Approach in the Study of Indian Households

In order to emphasize the originality of the atomistic approach in the study of Indian households, we need to identify the sociological/anthropological tradition against which it was elaborated. The chronology of this tradition was already summarized in the introduction, where we also alluded to a common thread running through analyses on household formation and composition in India, that is, the axiom which establishes the presence of the HJH as non-problematical.

Our general objective in the present section is to relate this common thread to Verdon's diagnosis on the 'collectivistic' perspective in the study of European households. We start by outlining the main characteristics of this collectivistic perspective and its concomitant 'culturalist' mode of explanation. Then, we provide a brief depiction of the 'ideal-type joint household' such as described by authors of the 'indological phase' in the study of the Indian family, insofar as this ideal type constitutes some form of *desideratum* for collectivistic accounts of the Indian household. Lastly, in order to typify the main features of collectivism and culturalism in the study of households in Western India, we review the conceptual and theoretical frameworks of Shah (1974) and Caldwell, Reddy and Caldwell (1988). (Perhaps the choice of these two ethnographic works calls for a justification; simply put, we consider Shah's early conceptual and theoretical framework to be the clearest and most synthetic exposition of a collectivistic set of axioms in the study of Indian households, and we believe the work of Caldwell et al. offers the most eclectic and illustrative example of a 'culturalist' apprehension of the evolution of the HJH.)

2.1. The 'Collectivistic' Approach

Verdon isolated two opposite and mutually exclusive approaches in the study of household composition and formation in Europe, each one holding a different set of axioms and thus clinging to different types of explanations of what they deem problematical. The first is the 'atomistic' approach, which we already introduced in the previous section, and the second is the 'collectivistic' approach.

The collectivistic approach is not based on residential atoms. Implicitly or explicitly, it assumes the propensity of individuals to coreside in complex households of a given type, thereby focusing on factors explaining the presence of less complex and/or nuclear households (i.e. on factors explaining the fission of complex households). For Verdon, collectivistic models almost invariably explain the fission of complex households by invoking the randomness of familial demographic trajectories[9] and, mostly, "the penetration of capitalism and its individualistic values" (1998: 21), that is, a change in people's tastes and values attributable to a cultural change. And because demographic factors can rarely (if ever) entirely account for the presence of simple households (a family may have the 'demographic potential' to form one large complex household but its members may nonetheless reside in separate households), Verdon argued that collectivistic sets of axioms almost invariably lead to 'culturalist' explanations of the fission of complex households. In fact, collectivism and culturalism can literally be seen as 'two sides of the same coin' (Latreille and Verdon 2007). If one posits a proclivity for families and/or individuals to coreside in complex households, one can hardly identify another set of factors than *cultural factors* to account for the inversion

[9] What Attwood (1995) described as a 'demographic roulette' (permanent celibacy, childlessness, premature death, etc.).

of this propensity and the sudden apparition of an 'individualist pull' endangering the unity of complex households.

As we will show, Verdon's depiction of collectivistic axioms and culturalist explanations in the study of European households resembles the foundations of several landmark analyses of households in Western India. But before we begin, a proper diagnosis of collectivistic analyses in Western India demands that we define the level of 'residential complexity' which these analyses would posit as axiomatic. This takes us back to the indological definition or representation of the HJH.

2.2. The Ideal-Type Joint Household in the Indological Literature

According to custom, the ideal-type joint household is a component of the ideal-type joint family, which is itself patriarchal, patrifiliative, and patrilocal (Orenstein 1965: 35-61). It is patriarchal in the sense that all its members should abide by the orders of the household head (karta), who is the oldest male in the family. It is patrifiliative in the sense that all males of the family gain inalienable rights to family and ancestral property by virtue of their birth to a male trustee (or sometimes by virtue of adoption by that trustee), who is the family's patriarch; the same should be true of women, although their property rights are rarely, if ever, enforced. Finally, it is patrilocal in the sense that wives are expected to move into their husband's household, in cohabitation with the latter's parents, brother(s) (married or single), and single sister(s). Even in contemporary India, patrilocality remains the dominant household formation pattern for all married couples.

The ideal-type joint family has many functions (residential, commensal, domestic, ritual, and economic activities, as well as corporate ownership of the family and ancestral property, etc.) which should encompass the same groups of individuals until the death of the parental couple. *Ideally, all individuals involved in these activities and in the ownership of family property should co-reside in the same household.* Sacred texts allegedly indicate that married brothers should even continue to live together after their parent's death, but it is acknowledge that this prescription is virtually never followed. Generally, once their father is dead, brothers perform a post-mortem *per stirpes* partition of the family property and living arrangements (meaning that every brother virtually gets an equal share, independently of how many children he and his brother(s) have), and all try to initiate a joint-family of their own. Of course, a married man without a son cannot create his joint family and household (except in some rare cases of adoption), but it is considered problematical for a man with one or more son not to govern over his own joint family and household.

While the patriarch is alive, then, the permanence of the joint-household is intimately linked to norms governing intra-household relationships. These relationships are marked by the dominance of men over women and of senior members over younger members; siblings and in-marrying wives are expected to interact with each other along these lines of authority. Spouses should avoid public displays of affection. The relationship between a father and his adult son(s) is to be a formal one, with the son(s) obedient to the father's orders and possessing no jural autonomy as long as the latter is alive. Similarly, in-marrying wives are expected to be obedient to the household head's wife, their mother-in-law, who is in charge of domestic activities. The relationship

between the mother and her son(s) is more ambiguous, though authors described it as a "strong, tender, unchanging, dependable bond" (Mandelbaum 1970: 62). On the one hand, a widowed mother is expected to be subordinate to the authority of her son(s); on the other hand, a mother (widowed or not) may also wield domestic authority over her son(s) and daughter(s)-in-law, authority which sometimes even included "the regulation of sexual relations" between spouses (*ibid.*).

These definitions of familial and residential criteria of membership, norms, interactions, functions and so on, form the very core of the indological representation of the hindu joint family and household. While numerous analyses were directly inspired by this classical representation, the accumulation of additional ethnographic and statistical data progressively called it into question. These challenges can be more or less reduced to a simple puzzle: why is it that, throughout the 20th century, India's residential landscape was characterized by i) a relative stability (or even an increase) in the size and proportion of joint households combined with ii) an equally stable and important proportion of nuclear households (e.g. Orenstein 1961; Goode 1970; Shah 2005)? Authors building on the indological depiction of the HJH were caught in the crossfire. They could not wholly accept the indological representation because its 'fit' with statistical and ethnographic data was often ambiguous (the HJH was not as omnipresent as previously thought, and the discrepancies between traditional norms and actual behaviors received more and more evidence on an ethnographic level); nor could they totally reject it, for the 'social change' hypotheses also failed to account for the endurance of traditional norms and residential practices in a large proportion of the Indian population. A compromise was needed.

2.3. The Collectivism of A. M. Shah

A. M. Shah's *The Household Dimension of the Family in India* (1974) can be partly understood as a struggle for conceptual precision in the study of Indian households. Like Verdon, Shah firmly distinguished the *household* from the *family* by defining the former as a 'group' and the latter as a 'genealogical model' (1974: 3); however, Shah defined the household as a multifunctional[10] group whereas Verdon viewed it as a unifunctional group. Like Verdon, he identified minimal units within the household. As we will see later, these are rather akin to the 'minimal household units' delineated by Ermisch and Overton (i.e. and to Verdon's MRUs). Shah then differentiated *simple* and *complex* households according to the number of units they would incorporate: simple households were defined by the residence of only one unit while complex households were marked by the coresidence of two or more units.

Another central concept of Shah's framework is the household's 'developmental process', a concept largely inspired by Fortes' 'developmental cycle', but qualified somewhat differently. As used by Shah, the concept merely infuses dynamism in household typologies by including 'processes' in which household gain or lose members, or in which new households are formed while others are dissolved. Shah argued that Fortes' acceptation of the term inadequately implied a linear and historically static conception of patterns of household formation (1974: 84-85). In his own ethnographic fieldwork in Gujurat, he observed that these developmental patterns are far from cyclical, that there is an abundance of possible sequences of household formation and dissolution, and that these sequences had changed to some extent with the westernization of India.

[10] "The household is a residential and domestic unit composed of one or more persons living under the same roof and eating food cooked in a single kitchen" (Shah 1974: 8).

Hence, Shah wanted his 'developmental process' concept to account for the plurality and historicity of residential trajectories in India. But how was he to ramify Fortes' 'developmental cycle' without tracing household trajectories in a state of complete disorder? Shah wrote that household types "are not discrete and haphazard; there is some order in them, and they are understandable only as parts of that order" (1974: 14). In other words, how was he to inject 'order' into his 'developmental process'?

Shah isolated three types of potential sources of regularity in the patterns of household formation in India. The first source is merely mathematical: in a closed system with a constant number of households, a rise in the proportion of one household type will necessarily be accompanied by a decline in the proportion of at least another household type, and so on. Regularities emerge if specific patterns can be found regarding the variations between these proportions (e.g. a given increase in HJHs being always accompanied by a proportional decline in the number of stem and/or nuclear households), but Shah remains vague as to the exact configuration (or even about the existence) of such a system in India. The second source of regularity is family norms (e.g. the norms behind the patrifiliative transmission of family property, the norms supporting the authority of the patriarch or the arranged marriage of young people, etc.). The third source of regularity comprises residential norms governing household membership and intra-household interactions; it is here that Shah actually introduced the PRUPW.

Henceforth, Shah's demonstration almost perfectly echoes Verdon's diagnosis on the collectivistic approach. By positing the propensity of patrikin to live together in complex households, Shah needed to explain the circumstances in which they lived separately from one another, that is, circumstances in which the PRUPW was violated.

He built these explanations around i) his developmental process argument (e.g. nuclear households can be seen as 'soon-to-be HJHs'), ii) the randomness of demographic events (e.g. some couples do not have a son, and therefore cannot form a HJH), or iii) the 'westernization' of values spreading from professional urban classes. One was therefore to distinguish between nuclear households incorporated in an 'unproblematical' Indian developmental process, and nuclear households that were in fact 'problematical' because having left the Indian process for the 'westernized' one. Only in the presence of the latter could one truly speak of the nuclearization of the HJH (1974: 101).

Accordingly, one could argue that his three types of explanations can be more or less reduced to the third (culturalist) type. Explanations of the first type only command further inquiries: in any analysis of household formation and composition, the developmental process *per se* is actually what needs to be explained (i.e. it is the *explanandum* and not the *explanans*). For instance, we need to know why sons leave the parental household after the death of the patriarch and not before his death, or how and why the marriages of the children can be delayed or precipitated, etc. Explanations of the second type offer only partial elucidations: there is ample evidence of families having two or more married sons who nonetheless share separate houses, and this has to be accounted for in a collectivistic perspective. We are left with explanations of the third type, which are nothing but culturalist explanations of the fission of complex household.

Shah noted that conflicts do emerge between household members and sometimes even lead to residential partition (1974: 74). This observation could have led him to formulate atomistic axioms, though he seemed to consider these partitions as mere residuals of a broadly satisfactory explanation. In his later works (1998c, 1998d, 1998e,

1999, 2005), Shah placed these tensions at the center stage of his analysis, but still did not reject his collectivistic stance. He acknowledged that some individuals have desires and propensities which run counter to the ideal of the HJH, but he did not address how this fact challenged or contradicted the PRUPW. Shah assumed that the PRUPW is normative, meaning that "there are deviations from it (as in case of all norms)" (1974: 16). Simply put, norms cannot impose a uniform developmental process in a given population because other factors must come into play. Shah wrote extensively about these other factors (ownership of land, the pooling of incomes, caste membership, individual idiosyncrasies, etc.), as we will see in the next sections, but was not able to integrate them into a 'new and improved' model on the Indian household. In other words, as he became more thorough in his descriptions of household dynamics, Shah added complexity to his analysis, but was not able to reduce this complexity to a unified theoretical framework as he did in his 1974 monograph. He became more descriptive than theoretical. As a result, his later works, which were more exhaustive and nuanced, also lacked the axiomatic consistency of his earlier formulations. Nonetheless, this material proved to be indispensable to our own atomistic formulation.

2.4. The Culturalism of Caldwell, Reddy and Caldwell

Caldwell, Reddy and Caldwell took on a more sinuous line of argument for their analysis of 'family structures' in Karnataka in *The Causes of Demographic Change: Experimental Research in South India* (1988). Perhaps unintentionally, their analysis contains collectivistic as well as atomistic assumptions, a state Verdon labelled as 'axiomatic dualism' (1998: 12). The problem with axiomatic dualism is that atomism and

collectivism are mutually exclusive; they yield opposite explanations of a same phenomenon, so that using both of these stances at the same time is nothing short of contradictory.

Like Shah, Caldwell et al. were not able to integrate conflicting observations on individual propensities into an axiomatically consistent theory of household formation and composition. We cannot offer a decisive interpretation of Caldwell et al.'s views on this issue, if only because situating the book's argument within John C. Caldwell's whole bibliography on family structures and sociodemographic change (a theoretical effort spanning nearly 50 years) falls beyond the scope of this thesis. However, a case can be made that their understanding of 'family change' was generally made in accordance with collectivistic axioms. For this reason, the following interpretation stands as a preliminary attempt to unearth some of the epistemological outcomes of Caldwell et al.'s underlying assumptions on household dynamics in South India in order to see how these contrast with atomistic explanations.

We begin with a conceptual clarification. Even if Caldwell et al. have merged conceptually the 'household' and the 'family' (whereas Shah had clearly separated them), we find that their definitions of the 'family' and of 'family types' normally involve the coresidence of family members:

> [T]he term *nuclear family* will mean a conjugal couple with their unmarried children. A *stem family* will describe two married couples in different generations – in our area almost invariably where the older couple are the parents of the younger husband. A *joint family* refers to married siblings **living together** [our emphasis] – in our area almost always brother; and a *joint-stem family* is the classical full pyramid where the older couple have with them more than one of their married children and usually grandchildren as well (1988: 111)[11].

[11] Caldwell et al.'s 'stem family' does not completely identify with stem families found in Europe, as there is no evidence of partible or preferential inheritance among brothers in India (1988: 128).

For this reason and also for the sake of clarity, we will continue our interpretation as if 'household' and 'family' were interchangeable in Caldwell et al.'s work. Instead, we will focus on their axiomatic dualism, which we believe is more crucial to their analysis.

On the one hand, we find collectivistic elements in the authors' structural-functional apprehension of the Indian household. Like we saw with the work of M. S. Gore, when one relates the presence of a given household type to a specific function being performed by this household type, one often falls into teleology and therefore posits the presence of this household type more than it actually explains it. Accordingly, Caldwell et al. wrote that the joint-stem family in India serves "two essential purposes": i) "to act as an engine for marrying-off the daughters of the family" and ii) "to provide a training institution for a new daughter-in-law" (1988: 126). The authors admit that this illustration is teleologically tainted, as they specify that the second function of the joint-stem family is not intrinsically linked to the joint-stem family (*ibid.*). A similar critique could be made when Caldwell et al. tried to account for the existence of an Indian 'stem family system' designed to ensure the care of India's elderly.

On the other hand, Caldwell et al. also wrote extensively about young people's desire for autonomy in domestic, economic, residential or even matrimonial matters. For instance, they acknowledged "the pressure placed on sons to stay together until their sisters are married, and, even if they are becoming older, to forgo the joys of being a household head in their own right" (1988: 126). They also mentioned that increasing economic opportunities reduced the authority of the patriarch because it also reduced sons' dependency of their father's resources (1988: 248). Both of these passages imply a

typical atomistic formulation: if unhindered, people will strive after their own autonomy in everyday matters.

As Verdon pointed out, axiomatic dualism can sometimes be reduced to a subtle manifestation of culturalism (1998: 23). This verdict partly applies to Caldwell et al.'s analysis of 'family change' in Karnataka but, in order to grasp the nuances of the authors' use of culturalist explanations, one must consider their whole book on demographic change in this region. At first view, when explaining changes in fertility, in marriage or in education, everything happens as if Caldwell et al. considered young people's desire for autonomy to be a result of cultural change:

> It is widely said that urban culture, transmitted to the villages by returning migrants from the town and also by the messages of cinema, has given children a new feeling about the limits beyond which they should not be pushed in terms of work and the minimum levels of needs which should be met (1988: 71).
>
> It is also quite frequently added that in the past, young men did not grumble about being denied marital sexual relations, but that the cinema and other urban or external influences are changing this position and that parents are beginning to take such complaints into account (1988: 93).

And one could multiply instances. The extent to which Caldwell et al. actually agreed with these explanations of social change is not clear; nowhere in their book did they settle in favor or in disfavor of these 'folk-models' elaborated by the people of Karnataka themselves. But even if they did not wholly agree with such accounts, their view of India's rising individualism cannot be held as equivalent to the desire for autonomy of an atomistic set of axioms: *simply put, the former is rooted in culture whereas the latter is rooted in social-psychology*. Once considered on a wider historical spectrum, it becomes easier to see how a pure 'culturalist' view of individualism may indeed adhere to collectivistic axioms: one can insinuate the existence of a traditional residential order

characterized by a preference for coresidence in complex households, only to signal its partial disruption by means of cultural change (modernization, westernization, etc.).

As for Caldwell et al., however, a diagnosis so brief would be overly simplistic. We know that John C. Caldwell himself did not confine his models on the demographic transition to the realm of cultural change. In his earlier works (e.g. 1968, 1976, 1977), he repeatedly invoked a wide range of non-cultural factors (urbanization, monetization, mortality decline, etc.) to explain the relation between family change and the demographic transition in third-world countries. More recently, he even emphasized socioeconomic causes *over* ideational causes to explain family change and/or fertility decline in developed countries (Caldwell 2004). Therefore, it comes as no surprise that Caldwell et al., in the concluding chapter of their book, attempted to portray how economic, political, social *and* cultural factors all interacted to shape changes in family structure in Karnataka (1988: 220-259).

However, it is impossible to be sure about the authors' views on the relative importance of each of these sets of factors taken individually: "It seems clear that these changes … were based *jointly* [our emphasis] on economic changes, and on the existence of alternative models toward which to channel social change" (1988: 225). Many passages suggest an understanding in which economic and political change initially caused a partial disruption in the traditional sociocultural order, disruption which opened the way to a "model of social behavior and relationship [the 'urban society' of the 'English way'] at hand toward which the society might move spontaneously of have been directed by its leadership" (1988: 255). Should we accept this interpretation, we could see how the authors' description of the mechanics of cultural change may have more in

common with the collectivistic perspective than with the atomistic perspective, even if the difference between these two approaches on this point may appear somewhat subtle.

For instance, from an atomistic standpoint, the removal of a given economic hindrance (e.g. the creation of non-agricultural jobs allowing sons to look for employment outside the family farm) can be a *necessary and sufficient* condition for the nuclearization of complex households. As for the collectivistic perspective, the removal of the same economic hindrance, though it might be seen as a *necessary* condition to the fission of traditional complex households, cannot be held as a *sufficient* condition for this fission. In theory, without a change in people's tastes or propensities (that is, a cultural change), the removal of economic hindrances could even lead people to reinforce their desire to co-reside (e.g. they could further benefit from the economies of scale). Arguably, the fact that Caldwell et al. wrote of the need to adopt of a new or alternative 'model of social behavior and relationship' (1988: 255) implies that they do not believe that political and economic changes can be sufficient conditions for the fission of the HJH.

Similarly, in his classical 1976 article, Caldwell stated that "it is apparently impossible (or, at least, examples are unknown) for a reversal of the [intergenerational wealth] flow … to occur before the family is largely nucleated both emotionally and economically. *A fair degree of emotional nucleation is needed for economic nucleation* [our emphasis]" (1976: 355). When analyzing the inversion of intergenerational wealth flows in Nigeria, Caldwell also added: "What causes this emotional nucleation of the family…? … This factor is undoubtedly the import of a different culture; it is Westernization" (1976: 352).

As we mentioned earlier, our objective here is not to elaborate a definitive interpretation of Caldwell et al.'s views on sociodemographic change. This task would lead us into a complex equation involving notions such as the secularization of demographic behavior, the emerging concept of children dependency, the inversion of the wealth flows between generations, the changing cost of children due to schooling, the growth of the non-agricultural job market, the progressive monetization of India's rural economy, the rising price of dowries, the influence of family planning institutions, urbanization and labor migrations, etc. But if we remain concerned only with the authors' analysis of household dynamics, we find that even if they often emphasized the importance of socioeconomic and political factors, they also tended to root individual propensities about residence in their 'model of social behavior and relationship', which themselves seem to be rooted more in culture than in social-psychology. For this reason, we consider that the authors addressed the question of the fission of the HJH mostly in collectivistic terms, though this collectivism was a lot more nuanced than that of Shah.

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The analyses reviewed in the present section have generally abided by Verdon's diagnosis on the collectivistic perspective and its culturalist mode of explanation. We explored the epistemological outcomes of plainly formulated collectivistic axioms in the early works of Shah, but we also saw the difficulty of interpreting these outcomes when studying a dual set of axioms like the one developed by Caldwell et al. (1988). We then saw how Caldwell et al. situated their 'models of social behavior and relationship' in culture more than in social-psychology, how this impacted on their understanding of cultural change, and how it hinted at the presence of collectivistic postulates. Let us recall

that the objective of the present section was to provide a contrast between atomistic and collectivistic views of the Indian household. We prefer to leave definitive interpretations of these authors' models to lengthier works.

The qualitative portrait we develop in the next sections will evacuate most references made to cultural change. It will seek to replace them with references to *centrifugal pulls*, *forces* and *hindrances*, in conformity with the atomistic terminology. In other words, it will seek to translate the ethnographic observations made by authors like Shah and Caldwell et al. within a new conceptual framework and a new set of axioms. Many of these authors' observations will be used again, but they will take a serve a different purpose or take a different meaning.

3. A Brief Qualitative Portrait of the Household in Western India

First, a caveat: the portrait presented here should not be viewed as being representative of households in the whole state of Maharashtra. On the one hand, the descriptions we use come from ethnographic sources, which aim to apprehend their object in all its complexity before relating it to the population to which it belongs. On the other hand, given the state's own diversity, a truly representative ethnographic description would confine us only to the most general statements, or to an endless enumeration of local particularities (Singh 1993). It could be said that ethnographies are more convenient for comparative analysis than for inferential statistics. Yet, as Caldwell, Reddy and Caldwell (1988: 3-20) pointed out, 'micro-demography'[12] can be very useful in the making of hypotheses explaining larger demographic phenomena. Accordingly, we wish to frame this portrait with concepts that can i) enable eventual comparisons between communities in Maharashtra and ii) provide variables and hypotheses for a subsequent statistical analysis of Maharashtrian households.

Ethnographic sources with an exhaustive description of household dynamics in Maharashtra are somewhat scarce (mainly Orenstein 1965: 35-61, Attwood 1995; some parts in Carter 1974 and Dandekar 1986). Therefore, we had to supplement them with pertinent details found in ethnographies from neighbouring states. Following Attwood (1995), we incorporated material from Shah's analysis in Gujurat, a state just north of Maharashtra; to which we added the studies of Srinivas (2002), Caldwell, Reddy and Caldwell (1988) and Hill (1982) in Karnataka, a state just south of Maharashtra. The

[12] 'Micro-demography' as used by Caldwell et al. (who could be categorize as demographers) refers to some form of combination of ethnographic and demographic methodology, especially used to tackle research topics in demography.

region encompassed by these three states will be labelled 'Western India'[13]. Though this usage might seem unsatisfactory, it must be emphasized that these authors' descriptions and analyses all run along the same lines, like a recurrent theme, to the extent that their similarities far outweigh their differences. A further expression of this common thread can be found in Mandelbaum's all-India synthesis (1970: 31-133)[14]. Let us reiterate that the portrait covers only the first three decades following India's independence (1950-1979), since the ethnographies covering this period remain the most detailed sources of information on the subject of household formation and composition in Maharashtra and Western India.

As we mentioned, what we attempt in this chapter is a translation, in atomistic terms, of pertinent ethnographic observations made on household dynamics in Western India. All the sources we use are secondary sources with the exception of Mandelbaum's synthesis. Ethnographic fieldwork allows for a detailed household census of the locality under study; when combined with information from in-depth interviews, this data can be used to build quantitative tables on the proportion and the number of individuals living in each household types, the incidence of pre-mortem partition, the reasons invoked for partitioning living arrangements, etc. Though this type of information is essential to our atomistic portrait, the core of our 'translation' comes from material gathered from

[13] We acknowledge that Karnataka is often classified in 'South India' (e.g. Dyson and Moore 1983; Agarwal 1994; Murthi et al. 1995), although one could note that Gujurat, Karnataka and Maharashtra display many sociodemographical and geographical similarities. Our objective here is not to establish a classification of state patterns in household formation in India, but merely to offer the reader a device for knowing if a given statement concerns Maharashtra more specifically, or 'Maharashtra and its neighboring regions'.

[14] Here, we mainly refer to recurrent observations made on intra-household relationships (e.g. the vital importance of having at least a son, especially for women; the conflicts between the mother-in-law and her daughter(s)-in-law; the authority of the eldest male; the segregation of the sexes; etc.), which are synthesized (and sometimes enumerated) in Mandelbaum's chapters on the Indian family. And even though there is not a perfect overlap between all the authors' use of these observations, it is striking to note how rarely they contradict each other, as opposed to how often they complement and concur with each other.

participant observation. This technique enables ethnographers to observe what people did (the *etic* approach) as opposed to what people said about what they were doing (the *emic* approach), which is especially useful when there is a contradiction between these two realms of social life. Returning to households in Western India, participant observation will help us to understand how the ideal of the HJH can be held as a conviction in political speeches, interviews and everyday conversations (Shah 1998c), and still be disputed by people's actual behavior.

3.1. Atomism in Western India

In spite of legal and religious prescriptions, in spite of the moral ideal of the 'the residential unity of patrikin and their wives', ethnographic sources on Western India have described a household much less ideal and a family much less united. The numerous conflicts, the bold and the timid attempts by young members of the household to gain their independence or the counteractions of the older members to retain their authority are often brought to the forefront of ethnographic descriptions. The emphasis laid on the customariness of post-mortem partitions of family property has also concealed much detail about residential separations happening beforehand. In their survey of nine villages in Karnataka, Caldwell et al. observed that 41% of fissions of complex households were actually pre-mortem (1988: 120). In Maharashtra, Attwood noted that pre-mortem partitioning among the sons, a process usually lasting several years, often began with one or more sons setting up a separate hearth and room within the family's compound, followed eventually by the construction of a separate dwelling (1995: 4-5). Shah wrote of a common pattern where older married brothers left the parental house as soon as their

immediate younger brother married, so that there were never more than two married couples in a household at the same time. In such cases, the youngest married son often maintained cohabitation with his aging parents (or widowed father/mother) so to support them in their old days. There are other cases where elderly parents rotated between their sons' households, so to 'change the mood' and to assuage the tensions arising out of coresidence with their married children (Shah 1998d: 87).

These descriptions clearly suggest that subordinate MRUs desired a separate household of their own even before the death of the patriarch. But before positing anything about their propensities, we need to posit the axiom that delineates MRUs in postcolonial Maharashtra and Western India. On this subject, there is an interesting resemblance between Verdon's MRUs in Europe and Shah's definition of a 'simple household'[15]. Shah delineates six 'units' whose coresidence defines a 'complex household', whereas simple households are identified when one of these six units resides exclusively in a dwelling: "(1) husband, wife, and unmarried children; (2) husband and wife; (3) father and unmarried children; (4) mother and unmarried children; (5) unmarried brothers and sisters; (6) a single man or woman" (1974: 14).

There are two major inconsistencies in Shah's delineations. The first concerns adulthood. In his units *1*, *3* and *4*, he does not differentiate between dependent unmarried children and adult unmarried children. For instance, a simple household where old parents reside with their 50 year old single son hardly resembles a simple household where a young couple raises its toddler. Hence, why would a different set of axioms apply to single adults in units *1*, *3* or *4*, and to single adults in unit *6*? The second

[15] The European MRUs are also used by Latreille and Verdon in the Middle East and North Africa; the authors even suspect they apply to most of Eurasia (2007:71).

ambiguity concerns unit *5:* again, why are single brothers and sisters not simply considered as single adults of the unit *6*? Shah himself acknowledges the many strains affecting relationships between brothers (1998e:105), which are marked by a 'principle of seniority' granting the elder brother the right to govern over his younger siblings in the absence of their father (Orenstein 1965: 47). If the elder brother's authority rarely reaches such formal strength, much is said about the conflicts it creates between brothers (Srinivas 2002). The cohabitation between a single brother and a single sister, and that between single sisters, are rarely described in the literature. As marriage is virtually universal (one might even say 'compulsory', to a certain extent) in India, the arrangement seems to be temporary because brothers are expected to marry-off their sisters, while denying them any rights in the inheritance of the family property (Shah 1974: 72-73).

All things considered, because the available evidence describes them as involving numerous patterns of subordination and superordination, the coresidence of parents and their single adult child(ren), as well as that between single siblings, hardly seem unproblematical. Consequently, we contend that the five types of MRUs delineated initially by Ermisch and Overton, and applied by Verdon in Europe, can also be applied in the case of postcolonial Western India and Maharashtra. These five types are, let us recall: 1) a single adult; 2) a matricell; 3) a patricell; 4) a couple without dependent children; 5) a couple with dependent children[16].

Henceforth, we need to establish the connections between Verdon's universal, social-psychological axiom and the propensity of Maharashtrian MRUs toward residential autonomy. As for Europe and MENA (Middle-East and North Africa), the

[16] As for the cohabitation between single sisters, more ethnographic data would be needed in order to grant them the status of MRU. For practical reasons, especially salient in the statistical section of the paper, we will for now deem their coresidence problematical, and consider every single adult a MRU of type 1.

MRUs' desire for domestic and economic autonomy are at the crux of their desire for residential autonomy:

> Usually, it is the 'heart-burning', the daily quarrels (*kankash, kitkit*) involving exchange of 'hot' words, shouting, screaming, weeping, crying, and even beating – *all arising mainly out of issues of management of routine household affairs* [our emphasis] – which leads to household separation (Shah 1998d: 87-88).

For the period covered by the ethnographies we used, we identified three major 'centrifugal pulls' in complex households in Western India, all of which contributed to the desire of subordinate MRUs for residential autonomy. The first one concerns in-marrying wives, the second one mostly involves the labor of men, while the third one relates to the effect of dependent children on couples' desire for residential autonomy.

In India, and Maharashtra is no exception, there was (and still is, to a certain extent) an acute segregation of the sexes involved in the household's division of labor. While women were generally confined to the domestic realm, men's occupations mostly took place outside the household's walls (Orenstein 1965: 54-55). In complex households, the wife (or sometimes the mother) of the household head was in charge of the management of domestic activities, and in a superordinate position toward other women in the household. Orenstein noted that the younger in-marrying daughters-in-law were "given the most work of the most disagreeable sort and sometimes the least adequate food" (60). Once again, a 'principle of seniority' was at play in relationships between daughters-in-law, as "the elder brother's wife should act like a "mother" in the absence of the mother in law" (61). Shah mentions that disputes between women most often involved disciplinary authority and the distribution of work in the household. It seems that daughters-in-law, especially the youngest, hardly had any control over the extent and nature of their share of work in the course of domestic activities (Shah 1998d: 85). In this

context, it is not hard to understand why in-marrying wives often exerted pressures on their husbands to get a household of their own, sometimes only a separate hearth and a separate room in the family's house, for it was to be a household by which they would obtain their domestic autonomy (Orenstein 1965: 45; Shah 1998e: 104-105; Mandelbaum 1970: 104).

However, when household partition did occur, the importance of conflicts between women were sometimes exaggerated because men tried to downplay the importance of their own disputes in order to "maintain cooperation with regard to farming and other matters" (Caldwell et al. 1988: 123). And just as daughters-in-law were subordinated to their mother-in-law in domestic activities, sons were subordinated to their father in regard to the distribution and revenues of their own work. The *karta* not only managed the division of labor between household members, he was also the manager of the household's budget, in which all members pooled their incomes (Orenstein 1965: 56-57; Shah 1998d: 86; Mandelbaum 1970:41; Caldwell et. al 1988: 126). The control over the pooled incomes gave an undeniable authority to the *karta*, and also created tensions between brothers; for instance, one brother could feel entitled to a bigger share of the family's budget due to his higher productivity, or may complain that his children do not receive as much food or gifts as his brother's, etc. Such conflicts were treated as conflicts happening between brothers, when in fact they really stem from the *karta's* power (Shah 1998d: 85).

On the contrary, it was observed that the most important change induced by residential separation was that "the son and his wife become the masters of their share of income from joint economic activities" (Shah 1998d: 93). Put differently, residential

autonomy for a young couple, and especially for the young men, did largely entail economic autonomy. In circumstances where economic cooperation continued between the seceding son and his father, the latter may still have wielded some kind of authority in economic activities, but this authority was to be weakened considerably. The partitioned son was freer to determine his working schedule or the amount of work he was to offer to his cooperators. Since he possessed his own separate income, he was no longer disadvantaged in doing extra-hours to compensate his brother's lack of productivity, for his income grew proportionately with his work load (or at least more so). In circumstances where the son did not continue to work with his father, as could easily have been the case in households with high income diversification, or in circumstances where the family's agricultural land and equipment was also partitioned, residential autonomy did automatically entail economic autonomy.

Lastly, many authors emphasized that as adult sons grew older, they asserted a further desire to affirm themselves as 'household heads', especially after the birth of their children (Carter 1970: 167). Caldwell et. al wrote of the "pressure placed on sons to stay together […], and, even if they are becoming older, to forgo the joys of being a household head in their own right" (1988: 126); Srinivas mentioned that "[t]he headship of an elementary family and membership of a joint family were in some respects incompatible" (2002: 141). What was observed was simply that the further an individual (or an MRU) feels to be an adult, the further the need for domestic, economic and residential autonomy. Verdon was quite clear upon that matter; some individuals, because they do not subjectively feel to be adults, might opt for a temporary subordinate cohabitation, perhaps even for a short time after their marriage. However, "[o]nce they

feel they ought to be treated as adults, […] our set of axioms should apply with its full force: they will shun cohabitation, and subordinate cohabitation in particular" (Verdon 1998: 64)[17].

But in spite of all such desires, complex households were abundant in the residential landscape. About half of households in Orenstein's fieldwork were complex households (1965: 37); about 63% of the Maratha population of Girvi, a village studied by Anthony Carter, were living in complex households (1970: 90); for Caldwell et al., whose fieldwork dates from the end of the 1970s, it was also about half the population of nine villages that was living in complex household (1988: 116-118). Hence, if all the 'centrifugal pulls' previously mentioned are indeed an integral part of household life in Maharashtra and Western India, how are we to explain that HJHs and complex households remained in such large numbers? As Mandelbaum's eloquently puts it, "centrifugal forces inevitably build up so that every family sooner or later breaches the ideal [of the HJH]" (1970: 37)…

3.2. Explaining Complex Households in Western India

On the one hand, it seems that superordinate MRUs cherished the ideal of heading their own complex household and eventually to extend it by marrying their sons and by trying to keep them at home for as long as possible along with the latter's wife and child(ren) (Shah 1998d:87). There are certain 'pleasures and advantages', as one could put it, in ordering others around in the household. By doing so, superordinate MRUs not

[17] On this very issue, Mines (1994) provided an illuminating account of the passage to adulthood in South India, especially on young adults' desire for independence in everyday activities (including their desire for residential autonomy).

only fulfilled a symbolic ideal which gives them a form of prestige (Shah 1998d: 84), they also gained from the many economies of scale yielded by 'cooperation' within a complex household. For instance, more household members allowed for a bigger household budget, and thus for bigger payments of dowries for daughters, which could in turn lead to hypergamy (Caldwell et al. 1988: 80-107). Putting it briefly, "[t]he joint household is both an instrument and a goal of social mobility" (Shah 1998c: 78).

On the other hand, if cohabitation in a large household became unbearable for adult children as well as parents, mainly because of the harshness of internal conflicts, the parents were said to cooperate in the residential separation of their older sons while keeping at least one of their younger sons at home to take care of them in their old age. Shah claims that "the majority of the so-called joint households are composed of parents and one married son" (90). In such circumstances, everything happened as if superordinate MRUs desired their residential autonomy to free themselves of the 'daily heart-burning' of complex households, but were forced to cohabit with one of their children in order to ensure they get the care they need when they become disabled (Shah 1998d: 84-87). If egalitarian cohabitation with the children in question proved to be unmanageable, as is usually taken to be the case, the parents simply opted for superordinate coresidence over subordinate coresidence (Orenstein 1965: 57). In the very same way, if a couple had only one son, residential separation between them was very rare; and while their two MRUs were expected to adjust in order to prevent conflicts, the older MRU, if not disabled, always remained in a position of authority in domestic and economic activities (Shah 1998d: 89; Orenstein 1965: 38).

Hence, for as much as young and subordinate MRUs might have held the ideal to cooperate in a strong and united HJH, we stressed the many reasons for which they desired to depart from it and to start a household of their own[18]. But what happened when a subordinate MRU tried to partition from the complex household to which it belongs?

The parental superordinate MRUs had many assets at their disposal in order to prevent it. The ownership of (or access to) agricultural land proved to be a decisive factor in this regard, for MRUs usually waited until they had gathered a minimal amount of resources – whether in cash, land, equipment or skills – before asking for residential separation. As Polly Hill puts it: "we may take it as axiomatic that *married sons usually find considerable difficulty in establishing independent, viable household which are mainly dependent on farming their own land, unless they receive some help from their father* (1982: 91-92)". Interestingly, poorer sections of the society were characterized by a greater proportion of nuclear households, mainly because poor superordinate MRUs could not offer any substantial incentive for subordinate coresidence (Mandelbaum 1970: 54; Hill 1982: 98-99; Caldwell et al. 1988: 130). As for households owning some kind of familial or ancestral property, there were not many sons who would give away their share in the corporate ownership; it was also extremely difficult for a son to receive his separate share before his father's death. There is no evidence of a father formally disinheriting one of his sons, since the latter's share in family property was acquired by virtue of birth, though authors emphasized the *karta*'s power to severely impede the process of partition. Attwood even wrote of a father who "may have quarrelled with his

[18] We do not want to imply that all intra-household relationships in Maharashtra are inimical; but, as Verdon puts it, "[f]rom a comparative perspective, what matters is that some circumstances bear the intrinsic seeds of conflict" (1998: 70). Concurrently, let us note that residential partition rarely entails the disruption of family ties: partitioning household members often try to locate their houses near one another in order to ensure familial unity (Shah 1998a: 5).

elder sons and *driven them away*, leaving the youngest in de facto, *if not de jure*, possession" (1995: 10, our emphasis). If the sons who left their parental household and village could have come back years afterward and legally claim their share in the family property, this right was rarely, if ever, enforced (Attwood 1995).

Such submission is surprising when one considers that the *Hindu Succession Act* allows any coparcener (i.e. sons) to claim partition of the family property from the age of 18 onwards (Derrett 1963). There were some instances of such demands, though they are considered somewhat exceptional and it seems that their successes were few (Orenstein, 1965: 57). For what if the *karta* ignored or rejected the claim for partition? There were cases where the father simply had the ability to refuse to divide the family property (Derrett 1963: 319; Carter 1970: 91; Srinivas 2002: 139-140). In other cases, the partition was obstructed when the household head involved local leaders into the dispute (Srinivas 2002). More importantly, the sons often lacked the resources to take the case to the courts (Hill 1982: 101), a recourse which has proved to be severely damaging for both plaintiff and defendant. It is said that families and individuals have been financially ruined by everlasting cases in courts (Orenstein 1965: 46). The Hindu law also gives coparceners the right to replace the *karta* in cases where he blatantly mismanages the family property, but Hill noted that sons usually did not dare take their father to the courts even in cases where the latter "[sold] farmland or cattle without consultation and semi-secretly incur[red] massive debts which are then 'joint debts'" (1982: 97).

Let us not forget that the *karta* managed the household's pooled income, and thereby restricted the ability of subordinate MRUs to accumulate any resources of their own. Here, the mere materials and skills for building an independent dwelling are of

significant importance. Shah writes of poorer sections of the society where a partitioning MRU "can construct, almost overnight, a small hut of bamboo and thatch" (1998d: 89; see also Caldwell et al. 1988: 130). Those of higher socioeconomic status who desired a more comfortable house (e.g. in cement), if there were none available in the family property, could always elect to move away in search of other sources of employment and income. But in the absence of job opportunities, the choice rather seemed to be between subordinate coresidence but material comfort, and residential autonomy but very low living standards and poor housing conditions – a predicament which generally promoted patience on the side of subordinate MRUs (Hill 1982: 101). In cases where other forms of employment were available in the neighborhood or in town, residential autonomy was to come at a great cost, or was not to come at all. Many migrant workers were stuck for years in urban dormitories such as those described by Dandekar (1986) in Mumbai. Besides, sons of cultivators were often inexperienced in non-agricultural jobs, so that these ventures were not always lucrative or appealing enough to trigger economic and/or residential separation. This is not to mention the cases when migrant sons simply continued to pool their income within the common household budget.

All things considered, however, Shah states that the diversification of income sources inside a household increased the chances of pre-mortem partition of family property (Shah 1998e: 102). This suggests an interaction effect between the macroeconomic environment and the *karta*'s attempt to restrict the accumulation of resources by subordinate MRUs, for the father's authority could hardly have been sufficient to ensure subordinate cohabitation without extra-residential hindrances limiting

economic opportunities. Indeed, it seems that increasing job openings in postcolonial India have weakened the force of superordinate MRUs:

> it is claimed [that] fathers are not as tyrannical as they once were, largely because they know that their sons are less dependent on the fathers' land or trade for employment, for both fathers and sons are always conscious of the urban and other non-farm labor markets that have developed in the last few decade. Fathers fear their unmarried sons wanting to migrate (especially an only son or one of the only one or two left in the village) or their married sons urging an earlier partition (Caldwell et al. 1988: 248).

In order to prevent long term conflicts within the family, fathers often supported their sons' labor migrations in town instead of condemning or trying to prevent it (Shah 1998e: 102-104). And though a migrant son could send a part of his income to his household of origin (in the household budget), he could always save another part in order to build a house for his own MRU in the future (Shah 1974: 23-24). It thus appears that the effect of employment diversification on household formation was not necessarily immediate. To a certain extent, it prevented the pooling of incomes and enabled subordinate (and patient) MRUs to gather enough resources to achieve residential autonomy. In this regard, unfavorable macroeconomic conditions or a lack of educational and professional competence would be important hindrances in the way of a subordinate MRU's residential autonomy.

Likewise, the fragmentation of family land and the population density is often highlighted as potential deterrents to partition property and residence (e.g. Orenstein 1965: 41; Caldwell et al. 1998: 129-130). A family land, for instance, is not uniform in its quality and yielding. Some parts of it may be irrigated while other parts are not; some may be very fertile while others may simply be uncultivable. Hence, the technical difficulty of separating family land in equal and functional portions is said to impede the whole process of partition (Shah 1998: 90-93). Kaiwar describes historical cases where

partition of even a most valuable irrigated land rendered its cultivation impossible, to which we add instances where wells were left unused because brothers did not agree about where it stood in the division of family property (1992: 284). In these circumstances, land fragmentation conspicuously reduced the economies of scale, and might have made it harder to obtain residential autonomy while preserving an acceptable standard of living (Orenstein 1965: 41). Nonetheless, authors agree that partitions occurred in spite of their economic disadvantages, which means that the importance of land fragmentation as a hindrance to residential autonomy should not be overstated. If the lack of agricultural land was so decisive a factor, coresidence between brothers would have remained important even after the father's death, whereas it was strictly avoided.

At midpoint between forces and hindrances binding subordinated MRUs to coresidence, we find another important determinant of household composition: marriage. According to the last *National Family and Health Survey* (IIPS 2007), the median age at first marriage in Maharashtra remains fairly low even nowadays, at 17,5 year old for women (17,7 for median age at first cohabitation) and 24,4 years old for men (24,5 for median age at first cohabitation). In fact, marriage in Maharashtra and Western India seems to be simultaneously a cause and an effect of residential subordination. On the one hand, parents generally had the power or legitimacy to arrange their children's marriages; on the other hand, the in-marrying spouses' early age at marriage gave the parents even more power within the household. The early age at marriage for women acted as a force to ensure the subordination of daughters-in-law, for as Verdon puts it, "it [is] much easier to rule over a teenage daughter-in-law and keep her in a subordinate position, even at the cost of physical violence" (1998: 102). Nonetheless, this effect should again not be

overstated. The young spouses eventually grow older and more insubordinate, so that other factors are needed to account for their residential subordination. It may as well happen that the young daughters-in-law, being often the most ill-treated members of a complex household, were consequently more inclined than their older husband to pursue their residential autonomy (as was the case in Latreille and Verdon 2007). There were some instances of divorce where the wife went back to live with her father; these are said to be more numerous in lower castes though very rare, if not inexistent, in higher ones (Orenstein 1965: 56; Shah 1998d: 88-89).

We mentioned that a young man's desire to become a 'household head' in his own right grows stronger as he marries and becomes a father. It is therefore not surprising to see the delay between men's age at marriage and women's age at marriage. We might also inquire about the traditional prescription according to which the relationship between husband and wife is to be devoid of romantic feelings in order to prevent the young couple's 'solidarity' from leading to household fission (D'Cruz and Bharat 2001: 168; Orenstein 1965: 53-56). Interestingly, the mere context of conjugal intimacy remained a delicate issue in households: "The physical arrangements are such that privacy can be attained only briefly, hurriedly, and in darkness" (Mandelbaum 1970: 74). Nevertheless, the extent to which these traditional ideals and customs actually prevented young couples from demanding a partition is not clear, as authors acknowledge that strong conjugal ties did emerge between spouses and that "the public face of aloofness was not reflected in private, especially after family partitioning" (Orenstein 1965: 55).

To end with, let us say a word about complex households in *urban* Maharashtra, for the previous explanations mostly revolved around residential groups in rural areas. The

length of the present chapter does not allow for further descriptions, but we can suggest some of the many lines along which we need to gather more ethnographic and statistical data on household formation and composition in urban Maharashtra. For if the economic and residential conditions of the rural populations were more diverse than is suggested in the last paragraphs, the urban populations should likewise not be considered as displaying a uniform economic and residential landscape. The distinction we can draw between migrant workers and the permanent urban population is a good example of such diversity. We mentioned that rural-urban labor migrations played an important part in the dynamics of household formation, and that they could induce migrant workers to a temporary coresidence with relatives, friends or coworkers, or that they could eventually foster residential autonomy for couples who accumulated enough resources. These possible outcomes offer additional reasons why urbanization does not necessarily or immediately entail a rise in the proportion of nuclear households, contrary to Goode's argument. And what about the more permanent urban population? Shah (1974) observed an increasing proportion of HJHs in town, a rise he attributed to an increasing sanskritization of lower castes; yet, he also wrote of pockets of professional and westernized classes, whose residential trajectories displayed earlier partition and a higher proportion of nuclear or simple households. And what about contemporary peri-urban settlements; are commuters more residentially autonomous than rural or urban populations? What are the differences between the living arrangements in the slums, and those in the center town? Is population density a more important determinant of residential autonomy in urban settings? Is the pooling of incomes as important in towns? In the absence of exhaustive data on these questions, we prefer to leave them open.

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In this section, we highlighted various centrifugal pulls that acted against the coresidence of MRUs, but also described various forces and hindrances that worked for it. We saw that a son could hardly challenge his father in order to obtain a pre-mortem partition of living arrangements or family property unless he possessed some form of bargaining power or preliminary resources, an unlikely situation because of the pooling of household incomes. In addition, we saw that a father could not be overly domineering over his sons, for the latters might have chosen to leave the complex household and migrate to find employment elsewhere; this occurred when the material advantages of staying in the parental household could no longer compensate for the 'cost' of the economic and domestic subordination imposed by a superordinate MRU. The early age at marriage for women and the gap between men's and women's age at marriage also accounted for the subordinate coresidence of young couples; it is not clear, however, how their influence evolved as the spouses grew older and more affirmative in their demands for independence. As was indicated in the section's title, this portrait was all too brief. Nevertheless, we believe it stands as a solid base for further ethnographic inquiries as we tried to frame our explanations so to render them falsifiable or rectifiable.

4. Residential and Domestic Autonomy in Maharashtra, 1983-2004

To proceed with our application of the atomistic approach for households in Western India, we need to quantify the effects of the centrifugal pulls, forces and hindrances we uncovered. To a certain extent, multivariate regressions can allow us to do just that. Through regression analysis, we can validate or invalidate the importance of several variables highlighted in the previous sections; more importantly, we can try to hierarchize their relative effects by comparing their coefficients or odds ratios.

Hence, in order to provide a statistical application of the atomistic perspective while simultaneously tackling the issue of the nuclearization of the HJH in Maharashtra, we divide the present section in three parts. In the first part, we delineate MRUs inside all the households surveyed in five large cross-sectional samples of Maharashtra, and will review the hypotheses or assumptions required to establish these delineations. In the second part, using the same samples and MRUs, we analyze trends in residential and domestic autonomy in Maharashtra for the years 1983-2004. In the third part, we analyze the determinants of the residential autonomy of couples (MRU4 and MRU5) using logistic regressions, accounting when possible for the relative effects of forces, hindrances and centrifugal pulls.

But before we start, let us briefly restate some of the key concepts used in our qualitative application of the atomistic perspective on households in Western India. A *minimal residential unit* (MRU) is a set of individuals whose coresidence is not deemed problematical. Five types of MRUs can be found in Maharashtrian households: 1) a single adult; 2) a single mother with her dependent children (a ‘matricell’); 3) a single

father with his dependent children (a 'patricell'); 4) a couple without dependent children; 5) a couple with dependent children. A *complex* household is characterized by the coresidence of two or more MRUs, while only one MRU can reside in a *simple* household. A MRU is residentially autonomous when it is the sole occupant of a (simple) household. In addition, we consider that a MRU is domestically autonomous when i) it is residentially autonomous *or* ii) when it is in a superordinate position inside a complex household.

Owing to a set of *centrifugal pulls* defining the propensities of MRUs when they interact with each other, the atomistic perspective then requires us to explain the presence of complex households (while the presence of simple households is taken as axiomatic). These explanations are constructed around two general concepts: intra-residential *forces* and extra-residential *hindrances* which constrain MRUs to coresidence. In our qualitative portrait of the HJH in postcolonial Western India, examples of centrifugal pulls are women's desire for domestic autonomy (especially to escape the authority of the mother-in-law) or sons' desire for economic autonomy (to prevent the pooling of incomes by the household head or *karta*); examples of forces are the ownership of arable land or the arranged marriages organized by senior generations; examples of hindrances are unfavorable economic climate or unemployment, lack of skills or resources to establish a new home, population density, ageing and the necessity of taking care of old people, etc.

4.1. Data

We use statistical data from five rounds of the *National Sample Surveys* (NSS) on employment and unemployment in India. The five samples were harmonized and made available by the *Integrated Public Use Microdata Series* (IPUMS), a project based at the University of Minnesota and the Minnesota Population Center. These rounds offer microdata on household composition and other socioeconomic indicators over a period of twenty years with cross sectional samples in 1983, 1987, 1993, 1999 and 2004. The NSS are designed to be representative of the whole Indian population, except for some special groups (orphanages, military barracks, ashrams, etc.), and their coverage in each state is roughly proportional to that state's share in the total national population. Maharashtra being the second most populous state in the country, its five samples vary between sizes of 44 500 individuals and 56 500 individuals.

The *National Sample Survey Office* (NSSO) provided the sampling design for the five surveys. The sampling procedures remain essentially the same in all rounds. First, the population of each district is stratified in a given number of rural and urban regions according to population density, class of town and crop pattern (according to the most recent census available). In each stratum, villages are selected in the rural sector and urban blocks in the urban sector to form the first stage units. Afterward, a collection of small villages and hamlets-groups of large villages, and of small urban blocks and urban sub-blocks (depending on the size and density of towns) are selected to form the second stage units. Households are then sampled to form the third stage units, as every individual inside each household surveyed is included in the sample. Households from urban areas, as well as affluent households in both rural and urban areas, are oversampled.

We used sample weights harmonized across all five surveys in our empirical analysis. These weights were identical for individual-level, MRU-level and household-level analysis. Aside from third stage units (households), however, survey clusters and strata were not available in each of the five rounds. Only the 1983 and 1987 surveys provided all the necessary components. Therefore, we had to complete our analyses without taking into the stratification and the the first and second stage units. In regression analysis, omitting clusters generally causes a downward bias in the estimation of standard errors (because of autocorrelation), while omitting strata can also entail biases in the estimation of standard errors (depending on the degree of homogeneity within each stratum and in the population as a whole). However, when we were able to compare our results with those we would have obtained using survey clusters and strata (with the 1983 and 1987 rounds), we found that standard errors were only marginally affected and that the major results remained practically identical.

Relatedly, just as we acknowledged the limits of our qualitative portrait's representativeness for the whole state of Maharashtra, we now need to recognize the limits of our statistical appraisal of household composition. First, a definite application of Verdon's atomistic perspective for Maharashtra would necessitate longitudinal data, since cross sectional samples cannot provide a dynamic analysis of household formation and dissolution, but only a static analysis of household composition. Second, the fact that the NSS samples are supposedly representative of the whole Maharashtra does not obviate the question of the internal diversity of the state. Inter-regional variation may be reflected as a significant coefficient in the estimated effects of a series of dichotomous variables on regional residence, and yet be so conspicuous in ethnographic analysis, that some of our

results should not be viewed as definitive but rather as calling for more localized surveys and ethnographic fieldworks. This is especially true when it comes to castes, for which the NSS samples contain no information.

Lastly, the concept of household used in the five samples differs from our own definition of the household, and also differs between the samples themselves. In accordance with Verdon's demonstration (1998: 24-46), we view the household as a unifonctional group formed around the activity of residence. In the NSS, it is defined as a multifunctional group encompassing activities of residence and food preparation and consumption. Except for some activities related to food preparation, which often involves a group exclusively composed of women (i.e. a subset of the residential group), the ethnographic data on Maharashtra by and large describes a very high correlation between the sets of individuals involved in these three types of activities; therefore, it seems unlikely that our definitional divergences will pose a major problem. One change in questionnaire design could affect the results and is described below. In the samples of 1983 and of 1987, 'temporary stay aways' are counted as household members, while no explicit rule as to their household membership was made for the following years. If 'temporary stay aways' are not counted as household members in the last three surveys, estimates on the frequency of residential autonomy could be biased upward. In rural areas, it is common for families to send one of their sons to a nearby village or town so that he can find a seasonal job in the non-agricultural sector; this additional income might help the family to make ends meet in times of economic uncertainty. Hence, the 'temporary exclusion' of an adult son from his parents' household can make their household *simple* while it is in fact *complex*. Nonetheless, the interviewees were asked

for their *de jure* residence; for this reason, we made the assumption that 'temporary stay aways' were included as household members in all five samples. Later on, in our regression analysis, we also pooled the data from all five surveys into one combined sample and used dummy variables for each survey to control partly for these biases. Notwithstanding these problems, it is important to remember that the harmonized NSS samples we use offer a unique opportunity of using socioeconomic variables in a large scale diachronic analysis of household composition in India.

4.2. The Delineation of MRUs

Let us recall that we are primarily concerned with the characteristics of MRUs and their interactions within households. The reconstruction of intra-household family links at IPUMS (see Sobek and Kennedy 2009) allowed us to delineate MRUs with great precision. As a result, the compromises we had to make between statistical applicability and what our atomistic portrait told us about MRUs' characteristics in Maharashtra were minimal. Our first step was to accept these pointers of intra-household family links as being accurate[19], which is far from being what we could call an 'heroic assumption' because they rely in great part upon the variable 'relationship to household head'. Moreover, data has shown that these "pointers agree with direct reports of family interrelationships more than 98% of the time" (Sobek and Kennedy 2009: 3). Another key assumption concerned the concept of 'adulthood'. We needed a criterion to differentiate dependent children from adult children since Verdon's socio-psychological

[19] Inside each household, each individual was related to his probable father, mother and/or spouse. These connections enabled us to delineate MRUs inside every household.

axiom posits that one's desire to obtain economic and domestic autonomy, and accordingly a MRU's desire for residential autonomy, comes along with 'normal' adulthood. However, we also know that individual trajectories are of decisive importance in determining when an individual becomes an adult, whether subjectively or 'objectively' (Mines 1994). Still, when handling a database and when arguing from the point of view of a collectivity, we had no choice but to select an age from which all individuals were considered to be adults; for technical reasons, we were not able to differentiate between the sexes in this delimitation. Consequently, we posited that all single men and women in Maharashtra are adults from the age of 21 onwards – which is roughly the midpoint between the median ages at marriage for the two sexes (IIPS 2007). As for the status of cohabiting couples, because of the frequent gaps in spouses' ages, they were all given the status of independent MRUs, which is not a very restrictive compromise since very few couples in the data were without at least a member aged 21 or more. Likewise, all monoparental families were considered to be MRUs, notwithstanding the parent's age. In the few cases where the household head was less than 21, he/she was also granted a MRU status. Finally, all other individuals under 21 who were not attached to a spouse nor to a parent cohabiting with them were defined to be dependent of the household head, and thus belonging to his/her MRU. As shown in Table 4.1, only 249 individuals in all of our five samples could be not incorporated into a MRU. From 1983 to 2004, we can observe a slight increase in the proportion of MRU1 and MRU4 accompanied by a slight decrease in the proportion of monoparental families and MRU5. The urbanization of Maharashtra is also reflected in the increasing proportion of MRUs found in urban areas throughout this period.

Table 4.1 – Number and Location of MRUs in the NSS Samples, Maharashtra 1983-2004

	1983	1987	1993	1999	2004
N (individuals, without weights)	52 153	56 501	46 388	44 473	46 897
Number of individuals without a MRU (without weights)	148	24	52	40	0
Total number of MRUs (without weights)	17 070	19 099	16 439	15 790	17 277
Proportion of MRU types (weighted %)					
MRU1 (single adult)	30,49	30,20	31,61	31,97	32,23
MRU2 (matricell)	5,98	5,61	5,02	3,92	3,86
MRU3 (patricell)	1,20	1,06	0,95	0,59	0,76
MRU4 (childless couple)	14,49	14,52	15,13	16,30	18,73
MRU5 (couple with child(ren))	47,84	48,61	47,30	47,22	44,42
% Urban (weighted %)	36,01	34,71	39,48	41,03	42,67
Region (weighted %)					
Coastal	23,69	23,08	25,78	28,29	26,59
Inland Western	26,38	26,75	26,78	25,84	25,47
Inland Northern	11,21	10,98	10,72	10,57	11,08
Inland Central	15,26	15,83	14,91	13,92	15,15
Inland Eastern	16,99	17,47	16,04	15,91	15,79
Eastern	6,46	5,88	5,76	5,47	5,92

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

The main advantage of analyzing household composition with MRUs is that we can distinguish between factors influencing *MRU interactions* and those influencing *family formation* (Verdon 1998: 150). For instance, a rising divorce rate can account for variations in the number of different MRUs, but does not have a necessary effect on the residential trajectories of divorcees following their divorce. The newly divorced could opt for residential autonomy just as they could be forced to cohabit with other MRUs. These interactions actually depend on the context and on other variables than the divorce rate itself (Verdon 1998: 154-156). In addition, MRUs enabled us to abandon the usual

references made to household heads. In India, however, it is theoretically justified to assume that individuals classified as household heads or as household heads' spouses are part of a household's dominant MRU. This assumption allowed us to establish if a given MRU was residentially autonomous, resubordinated or superordinated. It also allowed us to classify some MRUs as 'domestically autonomous': these were the MRUs which were i) residentially autonomous *or* ii) in a state of superordinate coresidence.

More importantly, the use of MRUs sheds light on the statistical definition of the 'nuclearization of the HJH'. In order to quantify an eventual nuclearization of households, it is not sufficient to simply quantify the proportion of nuclear households in the population: we need to quantify *a consistent rise in the residential autonomy of all MRUs*. Simply put, the nuclearization of three-generational households is as much the result of the residential trajectories of young couples as it is of those of old widows or monoparental families. On the other hand, the proportion of complex households is found to have remained relatively stable, we would still have to discern if the vectors of power prompting this relative stability remained constant. Let us recall that 21st century India will undergo an important process of population ageing. As the elderly parents may become increasingly dependent on their children's care to survive (Shah 1999), it may well result that the HJH will endure through many decades, though with a more frequent upward vector of power, whereas its 'traditional' vector of power relationships stemmed downward (from older couples to younger ones).

4.3. Results

4.3.1 Trends in residential autonomy in Maharashtra, 1983-2004

Many indicators can be employed to display or decompose trends in residential autonomy, and these will be examined before we study the effects of independent socioeconomic variables (which will eventually force us to reduce the size of our samples by dropping missing observations). The most important of these indicators is Ermisch's and Overton's 'loneship ratio' (1985), which is obtained when we divide the MRUs of a given age and type living alone (i.e. who are residentially autonomous) with the total number of MRUs of that same age and type. For this reason, we will also label it a 'ratio of residential autonomy'. Likewise, a 'ratio of domestic autonomy' divides the number of MRUs of a given age and type which are domestically autonomous by the total number or MRUs of that same age and type.

The next tables and figures are thus concerned uniquely with ratios of residential and domestic autonomy. We will limit our analysis to single adults and, more specifically, to couples. Trends in residential autonomy for matricells and patricells will not be analyzed because their numbers fluctuate too heavily across samples and age groups, and therefore yielded very inconsistent results. Since the ratios will be tabulated by age and year, the age of a given MRU will be that of the husband when couples are concerned, and that of the unit itself when describing single adults.

The Residential Autonomy of Single Adults

The statistics in Tables 4.2 and 4.3 show that, over a 20 year period, there was no common and uninterrupted trend toward an increasing or decreasing residential autonomy of single adults in Maharashtra either. What may look like an upward trend in one age

group is counterbalanced by a downward trend in another, so as to blur the role of a specific socioeconomic conjuncture that would explain a more general direction. Interestingly, variations between years are much more important for men than they are for women; this might be attributed to the fact that labor migrations, which numbers can vary greatly over time, are mostly masculine (Dyson and Visaria 2004). In addition, three regularities found across all five samples call for further attention (see Figure 4.1): i) the low levels of residential autonomy at early and later ages, ii) the low peak of residential autonomy for women and, of course, iii) the pronounced gender differences.

Table 4.2 – Residential Autonomy of Single Adult Men by Age Group, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	*Average*
Less than 25	10,52	13,52	7,87	10,74	8,82	*10,29*
25-29	19,14	17,21	15,57	14,66	12,54	*15,82*
30-34	25,93	23,96	24,64	26,05	20,91	*24,30*
35-39	33,09	46,73	31,50	29,89	31,48	*34,54*
40-44	50,07	47,18	31,33	41,17	48,24	*43,60*
45-49	49,52	41,09	40,40	38,12	20,20	*37,87*
50-54	31,95	32,52	29,64	30,30	25,43	*29,97*
55-59	27,51	20,55	25,47	25,37	37,93	*27,37*
60-64	20,64	18,41	26,07	15,71	10,26	*18,22*
65-69	9,48	9,37	13,52	7,36	8,33	*9,61*
70+	8,30	6,72	11,72	11,04	7,36	*9,03*

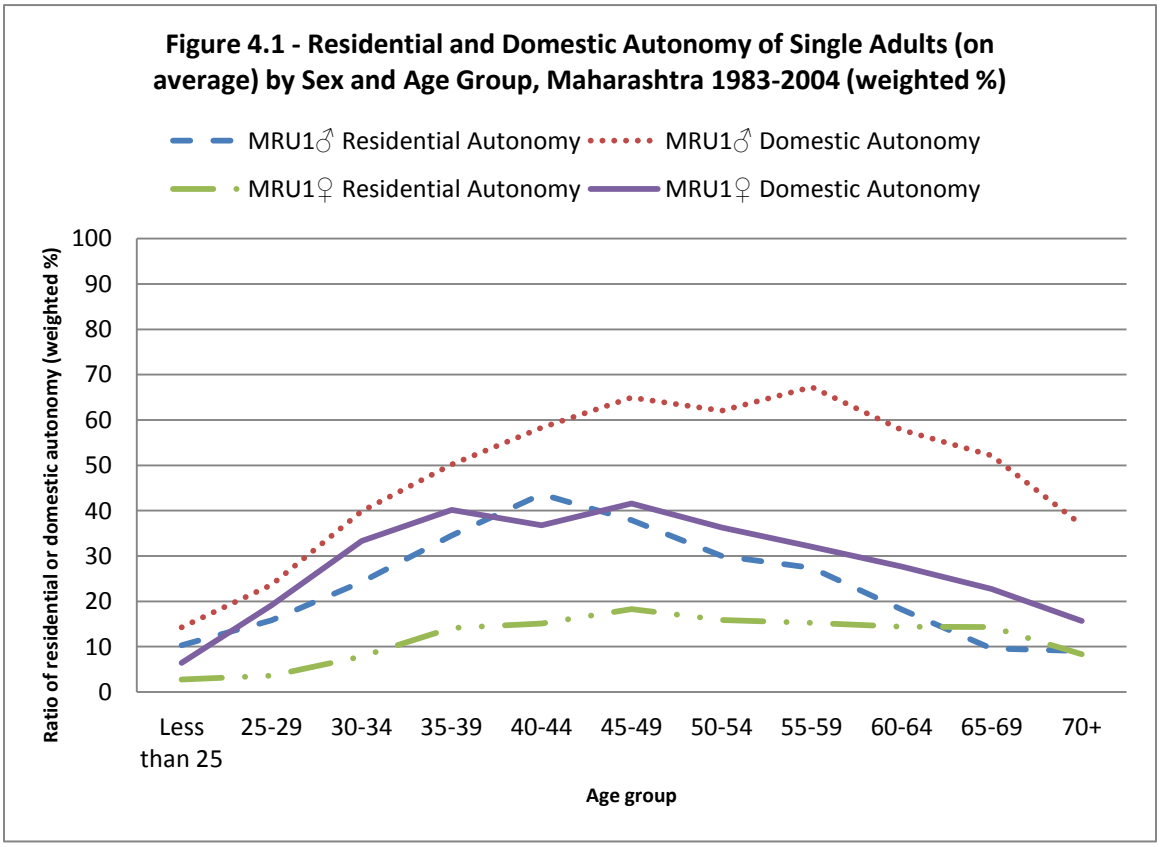
Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Table 4.3 - Residential Autonomy of Single Adult Women by Age Group, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	*Average*
Less than 25	3,05	5,98	3,36	0,13	1,21	*2,75*
25-29	6,97	5,62	2,40	1,16	1,93	*3,62*
30-34	10,01	7,51	7,80	7,82	5,85	*7,80*
35-39	10,53	14,96	18,29	10,29	16,43	*14,10*
40-44	16,76	22,03	11,18	14,17	11,41	*15,11*
45-49	16,47	18,40	16,37	16,90	23,12	*18,25*
50-54	18,59	9,91	19,74	14,68	16,49	*15,88*
55-59	15,08	16,59	12,25	16,19	16,06	*15,23*
60-64	15,94	13,74	13,39	12,59	16,38	*14,41*
65-69	14,40	10,63	14,53	16,30	15,83	*14,34*
70+	8,07	6,53	8,88	6,94	11,25	*8,33*

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Figure 4.1 - Residential and Domestic Autonomy of Single Adults (on average) by Sex and Age Group, Maharashtra 1983-2004 (weighted %)



Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

The low level of residential autonomy at later ages echoes the literature on the vulnerability of widows and widowers in India (see, among other, Cain 1991; Vlassoff 1990, 1991; Nayar 2006, Desai et al. 2010). The even lower levels observed at early ages can be seen as a symptom of young's people lack of resources before their marriage, which we addressed in the previous section. To provide a broad point of comparison, Canada's loneship ratios for single adults of all ages, in 1986, averaged over 50% for men and 60% for women (Juby 1995; in Verdon 1998: 153). The second regularity we highlighted is a more perplexing one; as marriage is virtually universal in India and Maharashtra, the identity and characteristics of single adults in the middle age groups remain unclear. When reviewing the literature on 'alternative family forms' in India, D'Cruz and Bharat (2001) wrote about monoparental families, dual earners families and adoptive families, but made no account of the 'alternative trajectories' of single middle-aged adults. Turning to the differences observed between genders, we can see that women's residential autonomy peaks at an average of 18% while their average domestic autonomy barely surpasses men's ratios of residential autonomy. This gap symbolizes the many tribulations women have to face in order to obtain whatever autonomy they can aspire to. If a fair share of single men seem to be able to claim their domestic autonomy as they grow older, everything happens as if women truly 'needed' to get married, since their chances of gaining their domestic autonomy *as single women* remain at unattractive levels.

The Residential Autonomy of Couples

Couples too do not show any clear tendency toward an increasing ratio of residential autonomy (Tables 4.4 and 4.5). So much for the nuclearization of the HJH in

Maharashtra. From 1993 to 2004, there was even a sharp diminution of the residential and domestic autonomy of younger couples, a trend we could broadly correlate with the early stages of population ageing. Life expectancy in Maharashtra went from 60.7 years old at the beginning of the 1980s, to 66.9 years old at the beginning of the 2000s (Registrar General 2010), which means that *karta*s can now hope to hold onto their superordinate position for a slightly longer period[20]. More importantly, Maharashtra's total fertility rate declined steadily over the last three decades: it went from 4.3 children per woman in 1971-75, to 3.4 in 1986-90 and to 2.3 in 2001-05 (*ibid.*). Even if we take declining sex ratios and population inertia into account, this means that couples became more and more likely to have only one son. Since we know that parents with only one son are very unlikely to partition living arrangements with him and that older MRUs usually retain their superordinate position in such cohabitation (Shah 1998d: 89-90), it comes as no surprise to see younger couples being less and less autonomous in residential and domestic matters. To put it more prosaically, in some circumstances, it appears that a young man's best chance at obtaining his residential and/or domestic autonomy was to have a younger brother; parents would allow the former to leave the family house as long as the latter was forced to remain with them, that is, was forced to care for them as they grew older. Nowadays, because of fertility decline in Maharashtra and in most of India, this young man's 'best chance' occurs less frequently.

Had we been left only with economic explanations to account for it, this decline in residential and domestic autonomy would have appeared all the more surprising given

[20] However, it might have been that this increase in life expectancy is attributable to gains in mortality at younger ages. To ascertain the effect of the rise in life expectancy on the *karta*'s force, we would need to measure the increase in life expectancy at, say, 50 years old. As the data on morality remains rather scarce in Maharashtra, we were not able to measure this indicator.

India's serious economic crisis around the year 1991, which was followed by economic transformations and relatively high levels of economic growth for the rest of the decade (Etienne 2006)[21]. In comparison, loneship ratios in Canada went up for all MRUs during the 1970s, a period of favourable economic climate, whereas they declined for some MRUs at the beginning of the 1980s, a period of economic difficulties (again, relatively speaking) marked by an important recession in 1982 (Verdon 1998: 156-160). The absence of such correlation in Maharashtra merely tells us that, when explaining trends in domestic and residential autonomy in India, there are other factors at play than just trends in per capita income.

Table 4.4 – Residential Autonomy of Couples (MRU4-MRU5) by Age Group, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	*Average*
Less than 25	14,82	14,69	23,61	21,60	19,90	18,92
25-29	31,60	31,30	40,11	38,56	33,44	35,00
30-34	46,75	48,79	54,16	54,68	45,77	50,03
35-39	60,27	63,89	64,29	62,04	57,35	61,57
40-44	66,18	66,33	71,67	65,35	68,07	67,52
45-49	55,03	58,61	59,99	53,60	53,73	56,19
50-54	41,52	39,14	37,37	34,24	30,86	36,63
55-59	32,08	27,80	28,55	26,35	24,57	27,87
60-64	30,61	28,05	26,10	22,29	25,31	26,47
65-69	23,19	30,67	32,15	29,90	26,95	28,57
70+	25,34	25,88	24,27	22,77	30,91	25,83

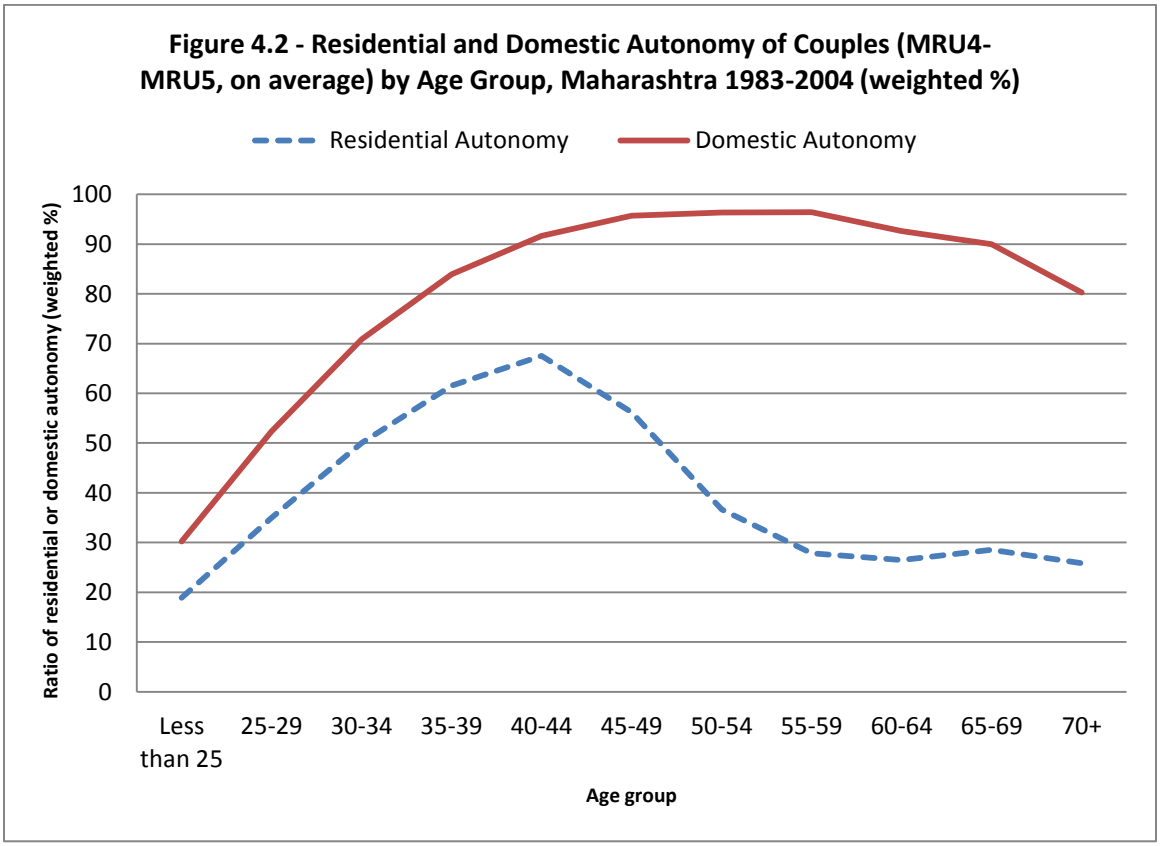
Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

[21] However, it also seems that housing prices fluctuated heavily in Mumbai during the 1990s, a fact not short of repercussions for the rest of the state (Nijman 2000).

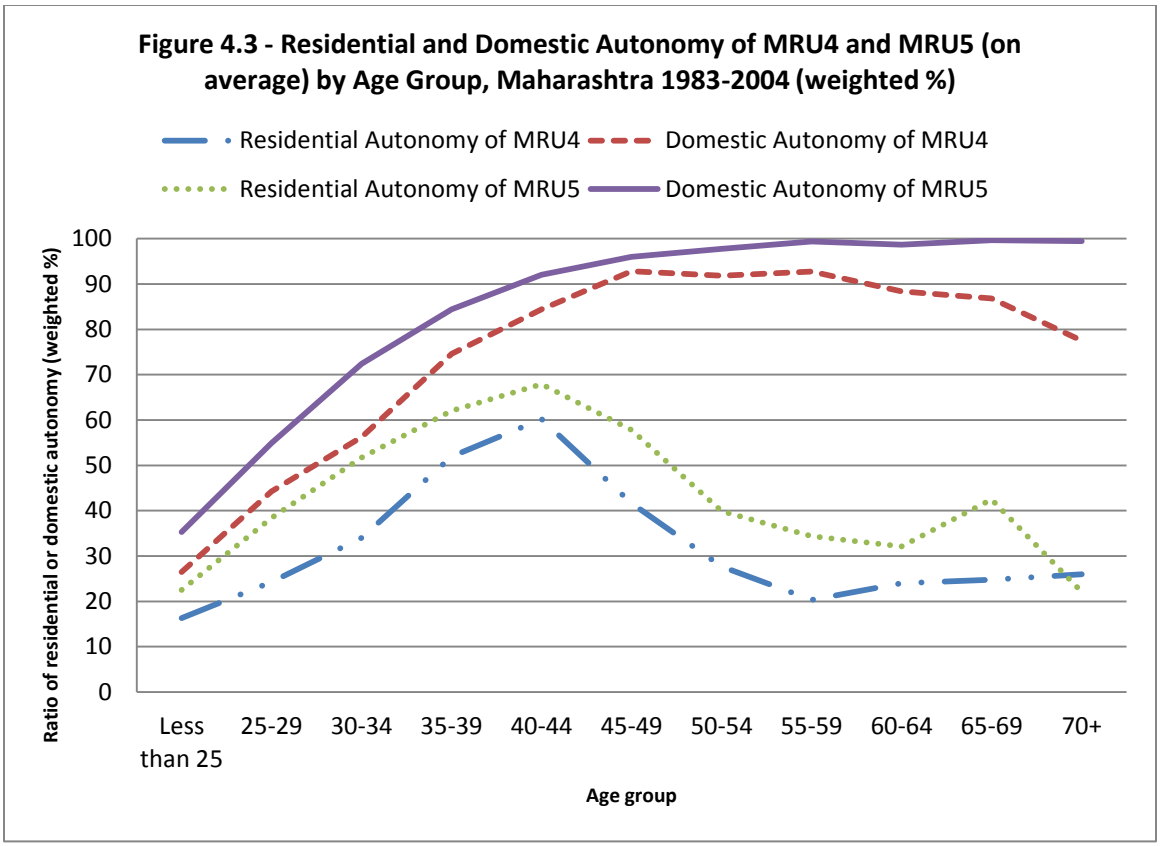
Table 4.5 – Domestic Autonomy of Couples (MRU4-MRU5) by Age Group, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	*Average*
Less than 25	26,37	27,26	34,57	33,83	29,15	30,24
25-29	51,67	48,79	57,82	54,81	48,64	52,35
30-34	73,34	70,25	74,04	71,70	64,98	70,86
35-39	86,11	87,26	87,12	81,27	77,76	83,90
40-44	92,49	93,48	93,17	89,24	89,93	91,66
45-49	96,09	97,05	96,42	94,88	93,99	95,69
50-54	96,53	96,75	96,19	96,36	95,85	96,34
55-59	96,54	96,49	97,38	95,22	96,35	96,40
60-64	93,51	94,51	93,08	89,13	92,91	92,63
65-69	93,73	90,35	90,48	88,43	87,01	90,00
70+	82,18	77,32	79,66	81,45	80,63	80,25

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).



Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).



Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Furthermore, we can observe that variations of these two ratios during a couple's lifetime, on average, are much greater than they were for single adults (Figure 4.2). We have to wait until the husband is aged between 30 and 35 years old to see a majority of couples becoming residentially autonomous. The peak of residential autonomy for couples comes when the husband is in the 40-44 age group. Afterward, the decrease in residential autonomy is accompanied by an increase in domestic autonomy, which means that couples generally became superordinate members in a complex household 'of their own'.

As expected, there are important differences between couples with dependent children (MRU5) and couples without dependent children (MRU4)(Figure 4.3). The

former type has a higher ratio of domestic and residential autonomy at all ages under 70 years, after which the number of MRU5 starts to decline substantially and to yield more inconsistent results. Interestingly, there is a gap of approximately five years between the average moments at which 50% of MRU5 and MRU4 reached their residential autonomy, a difference that reflects the influence of a centrifugal pull we previously uncovered. This pull was observed when young men, as soon as they became fathers, also became more affirmative in their desire for residential autonomy. In addition, the socialization of the children in a complex household is said to be an important cause of dispute, potentially leading to residential partition (Shah 1998d: 85). We can finally observe that old couples who still have dependent children under their supervision may continue to coreside with their other adult children in a complex household, but rarely become subordinate members in it.

In summary, the absence of a steady upward trend in loneship ratios over a period of twenty years supports the idea that there was no nuclearization of households in Maharashtra in the last half-century. As suggested in the introduction, but as can now be ascertained with more precise indicators, it seems we are rather witnessing a situation of relative stability of the HJH combined with a decrease in the residential and domestic autonomy of younger couples. This also means that young couples are increasingly living in complex households with a downward vector of power relationships. Hence, it becomes ever so pertinent to ask: why and how do complex households still endure in the context of modern Maharashtra?

4.3.2 The Determinants of Residential Autonomy

Method

Now comes the time to evaluate if the centrifugal pulls, forces and hindrances we described in the qualitative section can actually explain trends in residential autonomy in Maharashtra between 1983 and 2004. To this end, we specified two main models to maximize the use we could make of all observations in the five rounds of the NSS. Both models use logistic regressions because the dependant variable, the loneship ratio (we will also call it a ratio of residential autonomy), is dichotomous; both are solely concerned with MRU4 and MRU5 (couples), for which we possess the highest number of observations; and both are divided into several 'sub-models' in order to assess the robustness of our regression estimates.

In the first main model, we used all five NSS rounds but could only consider the effects of the centrifugal pulls and hindrances; we had to leave forces aside because of the impossibility to harmonize their associated variables across all samples. We pooled the data from the five surveys into a combined sample and used dummy variables associated with each survey to assess time trends in residential autonomy, and also to crudely capture for differences between the surveys' questionnaires and definitions. This first main model is itself divided into two sub-models.

In the second main model, we compared the effects of pulls, hindrances *and forces* altogether, but only for the years 1983 and 1999. We used data from these two surveys to estimate four separate sub-models. The first two sub-models merge the data from the 1983-1999 surveys into one sample, and addresses how the inclusion of forces

in the regression influenced the other independent variables. The last two sub-models offer regressions using the same variables, but this time for the 1983 survey and the 1999 survey separately (in order to depict the dynamism of the determinants of residential autonomy). By definition, the effects of our centrifugal pulls, forces and hindrances are not historically static: they change over time and we need to verify if and how these transformations are measurable.

Variables

In order to account for regional variations, we use dichotomous variables on the MRUs' region in Maharashtra and rural/urban location (Table 4.6). As previously mentioned, we view regional diversity as a most crucial issue in the Indian context. Consequently, our first sub-model provides regression estimates only for the survey dummies and these geographical variables; the results of this sub-model give us a broad picture of spatial and temporal variations in residential autonomy in Maharashtra. In addition, to take issues of religion and caste diversity into account, the last five sub-models all include a series of dichotomous variables on religious affiliation (Table 4.6).

To measure the effects of the centrifugal pulls, we used the husband's age as a proxy of MRUs' desire for economic autonomy, the wife's age as a proxy of MRUs' desire for domestic autonomy, and a dichotomous variable on the presence of a dependent child as a proxy of the effect of having a dependent child on couples' desire for residential autonomy (Tables 4.7 to 4.9). However, one must not necessarily take these proxies at face value; age was our best proxy of centrifugal pulls, but also correlates with a host of other factors associated to a MRU's bargaining power inside the household, some of which simply relate to personal maturation. In this regard, we included an 'age-squared' variable since we also anticipate that the effect if aging will be non-linear.

Table 4.6 – Location and Religious Affiliation of Couples (MRU4-MRU5), Maharashtra 1983-2004

	1983	1987	1993	1999	2004
% Urban (weighted %)	32,15	31,75	36,04	36,94	38,94
Missing/Unknown	0	0	0	0	0
Region (weighted %)					
Coastal	20,32	19,38	22,21	23,96	22,75
Inland Western	25,60	26,75	26,63	26,59	25,85
Inland Northern	12,40	12,32	12,23	11,88	12,16
Inland Central	16,92	17,55	16,94	15,69	17,49
Inland Eastern	17,68	17,92	16,39	16,13	16,07
Eastern	7,08	6,09	5,60	5,76	5,69
Missing/Unknown	0	0	0	0	0
Religion (weighted %)					
Buddhist	5,99	5,25	6,55	5,7	6,18
Hindu	83,28	84,05	83,11	82,55	83,07
Muslim	7,72	7,81	7,72	8,69	8,44
Christian	1,09	0,66	0,91	1,1	1,05
Other	1,92	2,14	1,71	1,95	1,25
Missing/Unknown	0	0,094	0	0	0
Number of Couples (without weights)	10 404	11 801	9 974	9 764	10 786

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

We measured the effect of hindrances using dichotomous variables on the spouses' attained educational level and on their occupation, that is, on whether they were i) 'household workers' or unemployed, ii) casual salaried workers or iii) regular salaried workers (Table 4.11). We were not able to include a variable on current attendance in school; since our samples are composed almost exclusively of people over 21 years old, this omission could cause a downward bias in the estimation of the residential autonomy of university students, though controls for age and economic activity might well minimize this possible bias. Finally, when available, we used a variable on the size of the

land cultivated (whether this land was leased-in, owned, etc.), which we divided into quartiles (Table 4.10). We viewed this variable as a proxy of the *karta*'s force, and thus we associated an increasing land size with an increasing ability, on the part of the *karta*, to ensure the coresidence of two or more MRUs in a complex household.

Table 4.7 – Age Distribution of Wives, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	*Average*
Less than 25	25,19	23,02	19,41	16,73	15,61	*19,99*
25-29	16,37	16,59	16,38	16,95	15,41	*16,34*
30-34	12,60	13,76	15,09	15,86	14,93	*14,45*
35-39	13,07	12,81	13,52	14,31	14,59	*13,66*
40-44	9,75	9,98	10,02	9,90	10,81	*10,09*
45-49	8,85	8,76	9,03	8,25	8,95	*8,77*
50-54	6,22	6,37	6,20	6,49	5,96	*6,25*
55-59	4,04	4,45	4,98	4,60	5,28	*4,67*
60-64	2,12	2,37	3,00	3,72	4,03	*3,05*
65-69	1,06	1,18	1,50	2,05	2,85	*1,73*
70+	0,72	0,70	0,90	1,14	1,59	*1,01*
Missing/Unknown	0	0	0	0	0	*0*

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Table 4.8 – Age Distribution of Husbands, Maharashtra 1983-2004 (weighted %)

Age	1983	1987	1993	1999	2004	***Average***
Less than 25	8,89	7,07	5,48	4,43	4,34	6,04
25-29	14,28	14,44	12,72	12,33	11,12	12,98
30-34	13,88	14,79	15,67	15,57	14,61	14,90
35-39	13,30	14,46	14,85	15,49	14,73	14,57
40-44	12,06	10,93	12,06	13,60	13,71	12,47
45-49	11,16	11,35	11,15	10,26	11,09	11,00
50-54	8,07	8,51	8,19	8,35	8,31	8,29
55-59	6,88	7,03	6,91	6,17	6,44	6,69
60-64	5,20	5,33	5,81	4,93	5,28	5,31
65-69	3,27	3,02	3,67	4,66	5,01	3,93
70+	3,01	3,07	3,50	4,19	5,35	3,82
Missing/Unknown	0	0	0	0	0	*0*

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Table 4.9 – Couples (MRU4-MRU5) With At Least One Child, Maharashtra 1983-2004

	1983	1987	1993	1999	2004
Couples With At Least One Child (weighted %)	76,76	77,00	75,77	74,33	70,34
Missing/Unknown	0	0	0	0	0
Number of Couples (without weights)	10 404	11 801	9 974	9 764	10 786

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Table 4.10 – Socioeconomic Characteristics of Couples (MRU4-MRU5), Forces (landholding), Maharashtra 1983-2004

	1983	1987	1993	1999	2004
Landholding (weighted %)					
No Landholding	27,68	n/a	n/a	27,83	n/a
1st Quartile	20,03	n/a	n/a	26,62	n/a
2nd Quartile	13,02	n/a	n/a	5,01	n/a
3rd Quartile	19,87	n/a	n/a	23,82	n/a
4th Quartile	19,41	n/a	n/a	16,71	n/a
Missing/Unknown	0,00	n/a	n/a	0,00	n/a
Number of couples (without weights)	10 404	11 801	9 974	9 764	10 786

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

Some Preliminary Considerations and Hypotheses

The effect of the spouses' *education* on residential autonomy is particularly hard to assess. Our main objective in this regard was to interpret education as a modality of a MRU's 'bargaining power' inside the household (assuming that more bargaining power inside the household makes it more likely for a given MRU to attain residential autonomy or at least to prevent domestic subordination). On the one hand, we could hypothesize that an increase in spouses' education would foster an increased bargaining power of their MRUs. For example, a son might be more likely to challenge his father's authority

Table 4.11 – Socioeconomic Characteristics of Couples (MRU4-MRU5), Hindrances (education and economic activity), Maharashtra 1983-2004

	1983	1987	1993	1999	2004
Husband's Education (weighted %)					
Illiterate	35,77	34,06	29,47	24,72	22,02
Literate, less than primary	12,13	13,46	13,21	11,67	10,02
Primary	22,08	20,07	15,78	14,25	13,92
Middle	13,16	12,24	17,69	18,89	20,94
Secondary	12,50	14,98	16,92	21,49	19,51
Undergraduate or Graduate	4,29	5,19	6,92	8,84	13,59
Missing/Unknown	0,06	0,01	0,01	0,14	0,00
Wife's Education (weighted %)					
Illiterate	65,48	61,75	53,00	44,36	39,35
Literate, less than primary	6,41	8,46	8,91	8,08	7,97
Primary	13,44	13,19	12,37	14,27	12,93
Middle	7,08	7,04	12,41	15,88	18,94
Secondary	5,93	7,34	9,75	12,56	13,20
Undergraduate or Graduate	1,63	2,22	3,51	4,76	7,62
Missing/Unknown	0,03	0,00	0,04	0,09	0,00
Husband's Economic Activity (weighted %)					
Unemployed or Working Home	49,71	47,85	47,80	46,36	53,71
Casual Wage Labor	25,49	27,03	27,36	28,42	24,03
Regular Wage Labor	24,80	25,12	24,84	25,22	22,27
Missing/Unknown	0,00	0,00	0,00	0,00	0,00
Wife's Economic Activity (weighted %)					
Unemployed or Working Home	71,36	72,79	72,69	74,33	74,86
Casual Wage Labor	26,44	23,74	23,93	22,60	20,83
Regular Wage Labor	2,19	3,47	3,38	3,07	4,31
Missing/Unknown	0,00	0,00	0,00	0,00	0,00
Number of couples (without weights)	10 404	11 801	9 974	9 764	10 786

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).

if he knows that his education can procure him a job outside the family network. Such a relation was suggested by Caldwell et al. in Karnataka (1988: 112), though it seems its effect was marginal after controlling for the size of the family's landholding (129). On

the other hand, it may be the case that even the most educated MRUs remain dependent on the *karta*'s network and approval to find a job, in which case higher education will not be accompanied by an increasing bargaining power in intra-household dynamics. Similarly, it is also likely that the education variable captures some effect of class or caste membership.

The effect of spouses' occupation can be interpreted more straightforwardly. We mentioned in the previous section that income diversification within the household generally had a positive effect on the residential autonomy of subordinated MRUs, since it prevented (to a certain extent) the karta's ability to pool their incomes in the household common budget. Accordingly, we make the hypothesis that salaried workers have a better chance to gain their residential autonomy than household workers or unemployed workers. We hypothesize that the absence of an independent source of income hinders the ability of subordinate MRUs to acquire the necessary resources to eventually form a viable household of their own. Ram and Wong (1994) discovered that a rising individual income had a negative effect on the chances of belonging to a complex household. Unfortunately, we were not able to include an independent variable on income because of the format of the variable in all the NSS. In the surveys, individuals were asked about their income for a given week in the year. Because of the importance of seasonal labor in India and in Maharashtra, we viewed this indicator as too fluctuating, and thus unable to render a clear picture of a MRU's income throughout a longer period (say, a year), which is actually the pertinent information to assess a MRUs bargaining power inside a complex household.

In their longitudinal study of villages of semi-arid tropical regions, some of which were situated in Maharashtra, Ram and Wong also observed that "large farm households were twice as likely to be extended [complex] compared with landless households" in 1976, and seven times more likely in 1984 (1994: 860). Caldwell et al. found a positive relation between the size of a family's landholdings and the presence of complex households, and thought that the relation would grow in intensity because of new legislations on land ceilings (1988: 129-130). However, they also wrote that sons were, at the end of the 1970s, "less dependent on the fathers' land or trade for employment" (1988: 248). For our part, we also make the hypothesis that larger landholdings will be positively associated with the presence of complex households but, taking Caldwell et al.'s last argument into account, we do not believe that this relation will continue to increase in intensity over the 20 years covered by the NSS samples.

The many hindrances we uncovered in our qualitative portrait restricted the sons' ability to accumulate the necessary resources to form a household of their own while their father was still alive. Those hindrances, however, were rarely important enough to compel married brothers to live together after the death of the father. Verdon wrote that one could detect that hindrances operated in absence of forces "when MRUs leave home soon after marriage, or return home after having been residentially autonomous" (1998: 68). As such trajectory is not alluded to in ethnographic descriptions, and in the near absence of the coresidence of married brothers after the death of their father, we finally make the hypothesis that, apart from aging, the effect of variables associated with forces will be more important on residential autonomy in Maharashtra than the effect of variables associated with hindrances.

Table 4.12 - Logistic Regression of Determinants of Residential Autonomy (without forces), Maharashtra 1983-2004 (odds ratios)

	Control Variables	Full Model Without Forces
Demographic		
Husband's Age		1,159***
(Husband's Age)^2		0,999***
Wife's Age		1,054*
(Wife's Age)^2		0,999***
Having Dependent Child(ren)		2,052***
Year (Reference: 1983)		
1987	1,427***	1,420***
1993	1,581***	1,623***
1999	1,525***	1,582***
2004	1,333***	1,497***
Location (Reference: Rural)		
Urban	1,124***	1,094*
Region (Reference: Coastal)		
Inland Western	0,856***	0,907*
Inland Northern	0,910	0,909
Inland Central	0,922	0,975
Inland Eastern	1,207***	1,180***
Eastern	1,045	1,016
Religion (Reference Hindu)		
Buddhist		0,960
Muslim		0,945
Christian		1,214
Other		0,997
Husband's Education (Reference: Illiterate)		
Literate, less than primary		0,867**
Primary		0,822***
Middle		0,770***
Secondary		0,804***
Undergraduate or Graduate		0,847*
Wife's Education (Reference: Illiterate)		
Literate, less than primary		1,027
Primary		0,957
Middle		0,872**
Secondary		0,909
Undergraduate or Graduate		0,982
Husband's Economic Activity (Reference: Unemployed or Working Home)		
Casual Salaried Work		1,760***
Regular Salaried Work		1,776***
Wife's Economic Activity (Reference: Unemployed or Working Home)		
Casual Salaried Work		1,337***
Regular Salaried Work		1,212*
Sample Size	49 578	49 578

Number of households	31 240	31 240

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).
Notes: *p<0.05 **p<0.01 ***p<0.001

Table 4.13 - Logistic Regression of Determinants of Residential Autonomy (full model), Maharashtra 1983 and 1999 (odds ratios)

	1983-1999 - Full Model Without Forces	1983-1999 - Full Model	1983 - Full Model	1999 - Full Model
Demographic				
Husband's Age	1,178***	1,169***	1,168***	1,191***
(Husband's Age)^2	0,999***	0,999***	0,999***	0,998***
Wife's Age	1,030	1,051	1,099*	1,000
(Wife's Age)^2	0,999*	0,999**	0,998***	0,999
Having Dependent Child(ren)	2,097***	2,150***	1,664***	2,496***
Year (Reference: 1983)				
1999	1,565***	1,610***		
Location (Reference: Rural)				
Urban	1,088	0,617***	0,578***	0,644***
Region (Reference: Coastal)				
Inland Western	0,952	1,148	0,987	1,290*
Inland Northern	0,930	1,106	1,059	1,159
Inland Central	1,028	1,452***	1,282*	1,578***
Inland Eastern	1,125	1,538***	1,520***	1,586***
Eastern	1,137	1,492***	1,503**	1,492**
Religion (Reference Hindu)				
Buddhist	0,879	1,017	0,834	1,174
Muslim	0,834	0,804	0,685*	0,902
Christian	1,048	1,066	0,615	1,584
Other	0,888	0,929	0,699	1,081
Husband's Education (Reference: Illiterate)				
Literate, less than primary	0,915	0,938	1,085	0,831
Primary	0,815**	0,835**	0,893	0,797*
Middle	0,741***	0,764***	0,898	0,688***
Secondary	0,772**	0,797**	0,879	0,731**
Undergraduate or Graduate	0,808	0,862	1,030	0,765
Wife's Education (Reference: Illiterate)				
Literate, less than primary	1,054	1,032	1,023	1,031
Primary	0,992	0,974	0,927	0,988
Middle	0,978	0,937	1,097	0,858
Secondary	1,055	0,969	1,063	0,916
Undergraduate or Graduate	1,071	0,952	0,952	0,973
Husband's Economic Activity (Reference: Unemployed or Working Home)				
Casual Salaried Work	1,884***	1,410***	1,386***	1,409***
Regular Salaried Work	1,641***	1,254***	1,361***	1,197*
Wife's Economic Activity (Reference: Unemployed or Working Home)				
Casual Salaried Work	1,276***	1,028	1,081	0,978
Regular Salaried Work	1,258	1,164	1,047	1,215
Household Land (Reference: Landless)				
1st Quartile		0,702***	0,622***	0,751**
2nd Quartile		0,464***	0,470***	0,442***
3rd Quartile		0,358***	0,329***	0,380***
4th Quartile		0,192***	0,163***	0,213***

Sample Size	19 169	19 169	10 152	9 017
Number of Households	14 781	14 781	8 246	7 488

Source: National Sample Surveys (NSS) #38-#43-#50-#55-#60, made available by the *Integrated Public Use Microdata Series* (IPUMS).
Notes: *p<0.05 **p<0.01 ***p<0.001

Findings

Table 4.12 presents the odds ratios of a model comprising the MRU4 and MRU5 of all five rounds of the NSS, but which does not include forces in its set of independent variables (which were only available for two rounds of the NSS). In both the first and the second sub-model, trends in the residential autonomy of couples follow our previous observations: even when controlling for more geographic and socioeconomic variables, we can see that the peak of residential autonomy for couples came around the year 1993, and that ratios of residential autonomy declined from that year up to 2004. This finding provides additional support for our hypothesis on the effect of fertility decline on MRU interactions in Maharashtra. The results of both sub-models also show significant regional variations across the state, as well as an urban advantage in residential autonomy; however, the inclusion of pulls, forces and hindrances in the second sub-model reduces the statistical significance of this urban advantage. Differences in residential autonomy between religious groups are not statistically significant.

Regarding centrifugal pulls, an increase in the husband's age is seen to have a more important positive effect on the residential autonomy of couples than an increase in the wife's age. In this model, 'aging' reaches its peak positive effect when men are aged 59 and when women are aged 21: this fact could be interpreted as meaning that men's pull for economic autonomy has a more durable and decisive influence on residential autonomy than women's pull for domestic autonomy. As expected, we also find that the estimated odds of being residentially autonomous are more than two times higher for MRU5 than for MRU4.

The effect of the spouses' education continues to be somewhat puzzling. For instance, men who have completed their middle-school are less likely to be residentially

autonomous than either men who have completed their secondary school *or* those who have completed only primary school. If we assume that husbands with a lower level of education belong to lower classes and castes, especially among illiterates, the negative effect of literacy should reflect the weak bargaining power of superordinate MRUs among poor sections of the society (i.e. poor fathers' inability to entice their married sons to subordinate coresidence). Accordingly, the fact that a husband's college education is positively related with residential autonomy in comparison with any level education from primary school onwards could reflect the fact that education matters more on the residential autonomy of couples among middle or higher classes. The same could be said about the effect of the wife's education, as college level education for the wife is even more closely associated with residential autonomy than a college education for the husband, although variations in the wife's education cause a lesser variation on the residential autonomy of couples than variations in the husband's education. This would confirm the notion that women's education, in Maharashtra and perhaps in most of India, is not the best indicator of a women's autonomy in everyday life (Das Gupta 1990; Ram & Wong 1994: 860; Jejeebhoy & Zathar 2001).

The second sub-model of Table 4.12 also shows that, all other things being equal, MRUs whose members work in casual or salaried jobs are significantly more likely to obtain their residential autonomy than MRUs whose members work in the family household or are unemployed. This observation is consistent with Shah's hypothesis on the effect of income diversification on residential partition. The estimated effect is more important with the work of husbands than with that of wives, although the influence of casual salaried work on residential autonomy is almost equal to that of regular salaried

work among men, while it is higher among women. Since we were unable to control for incomes in the regression, this relation may indicate that wages in Maharashtra are often simply too low to allow simultaneously for residential autonomy and acceptable standards of living. If true, this would provide another evidence of the value of land as a means for independence in India (Agarwal 1994).

As mentioned earlier, the main model in Table 4.13 incorporates couple data from the 1983 and 1999 surveys only, but also includes *forces* in its set of independent variables (whereas the main model in Table 4.12 did not). Accordingly, only a quick look at the first two sub-models of Table 4.13 is sufficient to question the robustness or stability of some of our estimates in Table 4.12. Notably, we can see that the dichotomous variable on urban location changes from having a positive effect on residential autonomy in Table 4.12 to having a non-significant or a negative effect in Table 4.13. Maharashtra being the third most urbanized state in India, this observation further undermines Goode's hypothesis on the influence of urbanization on the nuclearization of Indian households (1970: 203-269). As previously suggested, we might be able to explain this negative relation with a better assessment of the effects of population density and temporary migration in Maharashtra's towns. We can also see that geographical variations became more important in the second sub-model in Table 4.13: when controlling for landholding, a contrast emerges between the eastern and western regions of Maharashtra. On the other hand, this second sub-model still shows no statistically significant variations between religious affiliations.

Another important modification brought about by the inclusion of forces concerns the influence of gender. *In all the sub-models which included landholding as an*

independent variable, women's education and occupation has no significant effect on the residential autonomy of couples. Moreover, the effect of increasing age for a wife contributed positively to the residential autonomy of couples in 1983 (the third sub-model of Table 4.13, where the positive effect of aging peaked at 27 years old for women and at 59 years old for men) but otherwise had a null or negative effect. Once again, this echoes the literature on the great vulnerability of widows and in-marrying wives in Western India.

But perhaps the most important finding in Table 4.13 pertains to the pivotal influence of landholding, which we view as proxy of the *karta*'s force. According to the second sub-model in this table, belonging to a household that cultivated land reduced couples' odds of being residentially autonomous by at least 30% Let us be even more precise. In both the 1983 and the 1999 survey, all landholdings of the first quartile covered an area of at most one hectare. This means that during the years covered by both samples, when controlling for other variables, *the odds of being residentially autonomous are estimated to be at least 50% lower for a couple belonging to a household owning more than one hectare of land (roughly 50% of couples in both samples* (Table 4.10)*) in comparison with couples belonging to a landless household*. This provides a striking illustration of the *karta'*s strength when he is able to use land as leverage in his relationships with his sons. These results corroborate our hypothesis that, apart from 'life cycle variables' (age and the custody of children), the effect of forces is more important than the effect of hindrances in determining the residential autonomy of couples in Maharashtra.

The last two sub-models in Table 4.13 can be compared to take into account changes in the determinants of residential autonomy over time. In view of that, we can see that the effect of land has slightly lessened from 1983 to 1999 (the odd ratios are closer to one), with the exception of landholdings in the second quartile. This decline is not associated with a clear rise in the effect of spouses' education nor spouses' occupation, but is associated with a rise in the effect of the husbands' age and in the effect of the custody of dependent children. It is not clear whether this means that sons' bargaining power inside the household increased. Perhaps it tells us that the *karta*'s force now expresses itself differently. We believe that the slight reduction in the effect of landholdings could partly be attributable to a rise in the importance of another variable which was unfortunately omitted in the NSS samples: the number of sons (or brothers). If superordinate MRUs were certainly advantaged in possessing a large amount of land if they wished to maintain cohabitation with all their married sons, Shah wrote that "ownership of property would not be an issue in the relationship between parents and their only son […]; management of emotions and feelings would be the central issue" (1998d: 90). Though he might have overstated his point, Shah suggests that land may not always be the main reason behind the subordinate coresidence of an only son. Among other factors, we need to consider the age at marriage for men who have no brothers and the choice of the bride by the parental couple. The last two sub-models of Table 4.13 also showed important changes in the effect of religious affiliation (Muslims are no longer different than Hindus in terms of residential autonomy), urban residence and the husband's education.

Conclusion

The main objective of this thesis was to provide an theoretical and statistical application of Michel Verdon's atomistic perspective for the study of households in India, more precisely in Western India and Maharashtra. We can confirm that this application already yielded an advanced reinterpretation of ethnographic descriptions, a reinterpretation which was coherent from a theoretical standpoint and which also brought forth quantifiable propositions about household formation and composition in Maharashtra.

By adopting Michel Verdon's fundamental social-psychological axiom and adapting its corollaries to the Indian context, we reversed the terms of the traditional collectivistic representation of the Indian household; moving beyond usual explanations of the fission of complex households in India, we centered our analysis on factors accounting for their stability and thereby developed novel measurements and hypotheses on the so-called nuclearization of the HJH. One could even argue that the factors accounting for the presence of complex households in Western India (lack of financial independence of young couples, the management of household budget and family property by the *karta*, the age at marriage, fluctuations in employment and incomes, housing prices, materials and skills for building a house, etc.) appear easier to quantify than factors explaining their fission (the ambivalent 'developmental process' argument, the rising individualism among younger generations, the westernization of family values, etc.). In other words, the ethnological intuition entailed by our new set of axioms turned out to be an opportunity of synthesizing qualitative descriptions and quantitative

measurements into an integrated model on household formation and composition in Maharashtra.

With residential autonomy now the crux of the matter, and using Ermisch and Overton's MRUs and loneship ratios, we corroborated the views of the many authors who contended that there was no nuclearization of households in India (and Western India) and that there might even be a rise in the proportion of complex households (e.g. Shah 2005; Uberoi 1993; Caldwell et al. 1988; Conklin 1974; Orenstein 1961). Despite a favorable economic context, we observed a rise in the residential and domestic subordination of young Maharashtrian couples from 1993 to 2004, a situation we attributed in great part to fertility decline.

With regard to the determinants of the residential autonomy of couples, the use of multivariate regression analysis allowed us to determine that 'life cycle factors' (age and the custody of a dependent child) remained among the best predictors of a couple's residential autonomy. In addition, we noted that factors associated with the characteristics of the husband induced greater variability in the residential autonomy of couples than factors associated with the characteristics of the wife. The variations in the loneship ratios of single adults suggested a similar gender differentiation. And when the data was available to measure forces as well as hindrances, all other things equal, we saw that the effect of factors associated with the *karta*'s force (landholding) were more important than the effect of factors associated with socioeconomic hindrances (education and employment). These findings were consistent with several propositions previously detailed in our qualitative portrait of the household in Western India.

Yet, these statistical results must also be treated with caution. Since many crucial variables potentially related to our atomistic model were not available in the NSS samples (e.g. the health status of individuals, sibship size, age at marriage, income, etc.), further investigation with different data sets is needed to specify or ascertain some of the associations we uncovered. Furthermore, we abide by many of the clarifications made by Blossfeld et al. on cross-sectional observation (2007: 5-13). For instance, it may happen that the net effect of a given variable in our model(s) conceals two opposite and counteracting effects (like we suggested with education), so that a non-significant coefficient (odds ratio) may in fact hide two statistically significant associations. Likewise, Blossfeld et al. wrote that "[c]ross-sectional data cannot be used to distinguish age and cohort effects" (2007: 9); this limitation may undermine our interpretation of the effects of 'life cycle factors' and, incidentally, our interpretation of trends in ratios of residential autonomy between 1983 and 2004. As we mentioned, these trends mostly pertain to analyses on punctual settings in household composition and remain rather imprecise as to the evolution of patterns of household formation. Nevertheless, the variables we used and our proposed approach for linking their coefficients to ethnological theory can still open the way for similar modeling with better adjusted data; the use of longitudinal data might even lead to definitive solutions on some of the problems outlined above. Besides, had we been confined to collectivistic formulations or to a dual set of axioms, we might simply have been unable to attain such a degree of complementarity between our theoretical and quantitative specifications.

The few exhaustive statistical models on household composition and/or formation in India (most notably Ram and Wong 1994; Niranjan et al. 2005) were not elaborated on

atomistic premises and yielded ambivalent measurements and explanations of the phenomena under study. They drew no distinctions between factors influencing family formation and household formation (between MRU formation and interaction), nor between adult and dependent children, omissions which undermined the relevance of some of their independent variables and blurred their delineations of household types. But more important is the fact that these studies were trapped in some form of axiomatic dualism, and thereby displayed a lack of complementarity between their ethnological and statistical interpretations. For instance, Niranjan et al. wrote that residence in an urban area promoted 'urban culture' and a predilection for living in nuclear households (2005: 629), but noted on the opposite that "as the cost of living tends to be higher in the cities, individuals [residing in towns] are *compelled* [our emphasis] to live with their relatives" (2005: 646). If the first part of their statement suggests the presence of collectivistic postulates, This last part undoubtedly relies upon atomistic premises: it implies that if these individuals had not been 'compelled' (by socioeconomic hindrances) to coreside, they would have lived in simple households. In other words, they treated urbanization (a single dichotomous variable in their model) as a cause of both fission and permanence of complex households. Similarly, Ram and Wong interpreted a positive relation between the size of landholdings and household extension as meaning that "household extension was sought to facilitate the production process of families and to meet the manpower requirements of the production system" (1994: 863), but did not address the fact that the brothers invariably lived in separate households after the death of their father despite the loss of economies of scale, a situation unanimously highlighted in ethnographic accounts. Thus, if the model of Niranjan et al. suffered from contradictions in its statistical

interpretations in spite of pertinent ethnographic observations, we find that the model of Ram and Wong achieved a higher degree of statistical coherence at the cost ethnographic unawareness.

Could this lack of integration between statistical and ethnological models be resolved with a plain collectivistic set of axioms? The most coherent collectivistic analyses on households in Western India were made before the proliferation of computers and statistical softwares, and were thus limited to descriptive statistics. Notably, the work of Shah is characterized by a large amount of statistical data on household composition and causes of residential partitions, with many subdivisions by castes and other socioeconomic variables; however, because unable to isolate the effects of cultural factors (e.g. caste membership) and socioeconomic factors (e.g. income, landholding), it lacks the very precision associated with multivariate regression analysis.

Henceforth, instead of speculating about the statistical applicability of the collectivistic perspective (we prefer to leave this lengthy task to future inquiries), let us discuss some of the research opportunities propounded by the application of the atomistic perspective in India. More specifically, five research topics caught our attention.

The first of these topics concerns the nature of family property in Maharashtra and Western India. To put it briefly, leaving aside gender issues and the distinction between ancestral property and self-acquired property, the ethnographic material available remains ambiguous as whether family property in Western India is *corporate* or *individual*. We know that sons gain their share in the family property by virtue of birth and retain this share until they die or partition, a feature typical of corporate ownership (Verdon 1998:

91-92). Conversely, even if he is not legally entitled to disinherit his son(s) (though Attwood discovered a case of older sons being 'driven away' and *de facto* disinherited), the *karta* seems to possess a paramount authority over the management of family property and thus exhibits many of the features of an individual owner. Hence, if family property is indeed corporate, how can we explain that sons tolerate such an asymmetry in their relationship with their father? Given our fundamental social-psychological axiom, how can we explain the pathways by which this asymmetry may indeed limit the sons' autonomy in everyday activities? Could it be that family property in Western India defies traditional classifications of ownership types? We cannot overstate the need to gather more ethnographic data on property relationships between fathers and sons in Western India, and perhaps in India in general: solving this issue might lead us to refine definitions of centrifugal pulls, forces and hindrances related to landholdings.

A second vein of research opportunities revolves around the topic of households in urban India. We already alluded to possible lines of inquiries on this subject at the end of our qualitative portrait, and the differences we found in our regression analyses between urban and rural areas (especially once we controlled for landholdings) only confirm the importance of this issue. Further research on the relation between population density (as a hindrance) and residential autonomy, since these two phenomena can be measured with great precision, may lead to innovative assessments of the effect of urbanization on households in the developing world, a question dating back to Goode's (1970) seminal work. The impact of migration on residential autonomy in urban *and* rural Indian also calls for additional data; more particularly, we have in mind the study of the diverging residential corollaries of *international* migrations (labor migrations in the

Persian Gulf or the migration of skilled workers in Europe and North America, but also the impact of international remittances – e.g. Venier 2010; Sahay 2006; Dyson and Visaria 2004; Sahoo et al. 2001; Khadria 2001; Nair 1998; Shah 1998), *internal* migrations (particularly on issues of village exogamy and seasonal migration – e.g. Landy and Dupont 2010; Bhagat 2009; Lusome and Baghat 2006; Rahman and Rao 2004; Mosse 2005; Mosse et al. 2002) and *commuting* in India.

A third potential application of the atomistic perspective in India relates to studies on the impact of population ageing on household economy. In the absence of a large institutionalized system of retirement homes in India, we saw that population ageing may be accompanied by an increase in the number of complex household with a downward vector of power (CHDV), as was the case in Maharashtra from 1993 to 2004, or by an increase in the number of complex households with an upward vector of power (CHUV) (when the parental MRUs become disabled or when the *karta* dies and leaves his widow under the responsibility of his son(s)). Hence, in order to measure or anticipate the burden of the elderly on the everyday activities of the labor force in India, it will be of primary importance to determine how the transition from CHDV to CHUV unfolds across time and space, that is, how this transition varies across regions, castes, socioeconomic classes, cohorts, economic cycles, etc.

As already seen, a fourth potential application of the atomistic perspective in India involves the use of longitudinal data and analysis on household *formation*. The numerous accounts of the 'developmental cycle' or 'developmental process' of households in India already suggest possible integrations of ethnographical descriptions within models in 'event-history' or 'survival' analysis. As the atomistic perspectives establishes a firm

distinction between factors influencing the formation and interaction of MRUs, it will also be worthwhile to analyze these longitudinal trends and determinants with multilevel models incorporating the individual, the MRU to which he/she belongs, the household and higher levels of social organization (sub-caste, village, caste, etc.).

Last but not least, a fifth topic of research opportunities propounded by the application of the atomistic perspective in India pertains to recent methodological developments in 'microsimulation models' (MSMs) and 'agent-base models' (ABMs) (e.g. Railsback and Grimm 2011; Gilbert 2008; Billari et al. 2006; Billari and Prskawatz 2003; Van Imhoff and Post 1998; Keilman et al. 1988). These models could provide refined methods of household projections since they enable us to simulate interactions between our units of analysis: being able to apply a wide range of hypotheses on settings of power relationships between MRUs would certainly improve the accuracy of our simulations. But we must also remember that "[c]onclusions from a simulation are only as trustworthy as the rates and rules which the simulation takes as given" (Wachter 1987: 215). In other words, when considering the case of Indian households, the validity of MSMs and ABMs depends upon the use of reliable longitudinal data and the formulation of precise and simple 'rules' of MRU formation and interaction. In spite of these cautions, we find reasons to be optimistic. Some studies have already shown how a high degree of quantitative precision in the measure of transition rates between MRUs and household types can be attained with the use of 'multistate' or 'multidimensional' methods in demography (Ledent 1995; Juby 1993); similarly, the present thesis makes an argument on how the atomistic perspective may already provide us with an adequate conceptual language to model patterns of MRU formation and interaction. It seems,

therefore, that the eventual applicability of MSMs and ABMs in the study of the Indian households ultimately depends on the quality of the statistical data available on the subject.

In other words, much work remains to be done in order to explore all the opportunities yielded by the application of the atomistic perspective in India, and eventually in neighboring countries. And we did not even mention some more 'exogenous' research topics suggested by some concepts used in this thesis - from measures of the effect of residential autonomy on maternal health, fertility, or infant mortality, to considerations on the role of cultural explanations in household/family demography. All in all, we believe that the connecting thread to such an effort has to be the dialogue between ethnological and statistical approaches of sociodemographic phenomena. This methodological debate remains open, but already we saw how, even on a century-old question such as the nuclearization of the Indian household, only a brief ethnological adjustment, underpinned by a discontinuous conceptual grid and a consistent set of axioms, can lead to fruitful quantitative measurements.

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