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TACOS, TIENDAS AND MEZCAL

An actor-network perspective on small-scale
entrepreneurial projects in Western Mexico



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Gerard Verschoor

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To Lucy

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PREFACE AND ACKNOWLEDGEMENTS

"As a kid, I once got involved in a traffic accident. I was sitting in the back of a lorry when the thing overturned. When I got home, I was still bleeding a bit from my leg. My father asked: 'what's the matter, boy?' Since my father despised the owner of the lorry, I lied and told him I had slipped from a wall. As I did not want my father to find out, that same day I went to my grandfather who had a wooden image of San Ramón - you know, the saint who takes care that gossip is not spread. With some chewing gum, I attached two one-cent coins to the saint so that he would not forget me. After a few days however gossip reached my father's ears, and I got a real huge beating. So I went back to San Ramón, took the cents away from him, and bought me some breads with it. When my grandfather died some years later, lots of people went to his house to see if they could get hold of some of his belongings. I was among the first to be at his place, and the first thing I took was San Ramón's image. I ran home, and threw San Ramón into the fireplace. I remember saying: 'so let's see, bastard, who saves you from this one!'"

Andrónico (77), a farmer from San Gabriel

This thesis is about *tacos* (a traditional Mexican dish), *tiendas* (shops which more often than not seem to specialize in about everything) and *mezcal* (a distilled liquor of which *tequila* is the best known variety). More specifically, it is a study on problem-solving by rural small-scale entrepreneurs who wish to make their firms flourish and who are involved in the production and distribution of these goods and services. As so many pieces of work, this study grew out of the uneasy tension between love and hate. Between love for the extraordinary cunning, the shrewd strategizing, and the endless craftiness of these entrepreneurs, and hate for the hardships, the suffering, the marginalization of their vast majority. Between admiration for the irony displayed by these businessmen in the face of adversity, and the horror of discovering that the 'universe of the possible' of others is so infinitely inferior to mine. Between the joy of finding new theoretical avenues to understand the practices of entrepreneurs, and the feeling of anger and impotence when looking at the way in which these entrepreneurs are portrayed in most sociological literature as well as in the policies - however well-intended - which they engender.

Like Andrónico, in this thesis I am deliberately iconoclastic. I do away with cherished theoretical notions which I believe have more harmful than beneficial effects for the lives of rural entrepreneurs. I am aware that this may upset some readers. But this is my choice. And my responsibility. Thus in the pages to come you will not find any reference to traditional sociological

notions of 'culture' or 'context'. No reference to 'culture' because the concept has been reserved by Western science to describe one of the 'objective' entities used to constitute "Man" (cf. Latour 1988b). No reference to 'context' because the term suggests that the activities of men and women need to be situated into an existing framework of action defined *a priori* by the analyst. Instead, this thesis explores the relationships between men without ignoring the things of the world - the objects which make visible these relationships. And it probes the ways in which men and women try to *give* themselves a context. In addition, this study returns positively to what is defined negatively: small firms which are generally attributed to be pre-capitalist, informal, traditional or operating underground (as against capitalist, formal, modern and visible). The thesis does so by taking a novel theoretical framework - actor-network theory - out of the province of the sociology of science and technology and into the domain of development sociology, applying it to the analysis of rural small-scale entrepreneurial projects. It is this, I believe, which may account for the potential value of this study.

This thesis is part of a large collective of people and things. It adds to this collective, just as it itself is an effect of it. Of course, I myself brought together the different elements, but without them this study would have never seen the light. To thank all of them would no doubt be an impossible task. Yet some of them were crucial, and some of them I would like to thank expressly. Jan den Ouden, for his catching lectures which turned me into an anthropological convert, and for the notion that the study of the Other is the best way to understand oneself. I am indebted to him for the idea that acknowledging a plurality of worlds is the keystone to tolerance. Pieter de Vries and Monique Nuijten for their sincere friendship, and for the long discussions and heated debates we had about the interpretation of the events in which we participated during fieldwork. Their company was indeed a great addition to our stay in Mexico. Alberto Arce for his enthusiastic and contagious urge to pursue that which is not obvious, and who taught me not to separate morality from science. Jan Kees van Donge, for strengthening my belief that I should problematize 'culture'. Thea Hilhorst, for her ability to let others have confidence in themselves, and for introducing me to sociology. Joek Roex, Magda Villarreal, Jens Andersson, Horacia Fajardo, Gabriel Torres and Humberto González for acting as efficient sparring partners with whom I could discuss, test and hotly debate my ideas. Jos Michel and Nannie Brink, for their adeptness in finding solutions to problems - not problems to solutions.

A special word of gratitude for my supervisor, Norman Long, who prepared me to take practice in earnest. I enjoyed his enthusiasm, and admire his Epicurean and agnostic lifestyle which taught me to make the most of fieldwork situations (and academic ones). He was there when I needed him (and, sometimes, when I did not!). I value his way of putting everything into perspective, and of encouraging me to pursue my own ideas, even when these

did not coincide with his way of thinking: the true quality of a professor. I will never forget when, after an undergraduate course, he bluntly said to me: "I can't teach you anything; if at all, I can only stimulate you to swim on your own." I think he did.

Apart from these friends and colleagues, I wish to thank all those who made our stay in Mexico a pleasant one. Our thankfulness in particular to David Flores, Graciela Zepeda, Pablo Naranjo, Teodoro and Margarita Naranjo, Cuca Zepeda, Chabelo Flores, León Gómez, Carlos and Anita García, Juan Arias, Carlos Ortíz, Federico Paz, Armando Corona, Matilde Estrada, Nacho and Rosa Gómez, Toño and Gonzáles, Lupe Cisneros and their families for showing me some unimaginable facets of the human condition.

In line with the argument of this thesis I also have to mention some of the non-humans which did not go off on their own, and helped me put together this piece of work. *Mezcal*, for the freedom of association it sometimes allows, and for setting the stage for the construction of trust. No doubt, without *mezcal* I would never have grasped the relationships that constitute the groups in which it is enjoyed. Also, a word of appreciation for my computer (despite the hard times it sometimes gave me), the pick-up truck which never let us down, the El Grullo bank's automatic teller machine, the different libraries and books consulted. And, of course, the Wageningen Agricultural University for its *Assistent in Opleiding* grant and excellent benefits which more than once were detoured to make the lives of some friends a little more bearable.

Finally, I wish to mention my indebtedness to Margreet for her selfless enthusiasm to take on new things. Without her, doors would have stayed forever closed. To my daughters, Francesca and Lorena, whose presence enriched my life substantially - and kept me from overindulging in *mezcal*. To my father, Frans, for his continuous backing and understanding of the sometimes idiosyncratic ways of a son. And to my mother, Lucy, for her eternal support and inspiration and who, unluckily, did not have the time to see this finished product. This thesis is dedicated to her memory.

Gerard Verschoor
April 1997

CHAPTER 1

SMALL FIRMS AND DEVELOPMENT

Images, epistemological prescriptions, and Great Divides

This study is about the dynamics and feasibility of small-scale entrepreneurial projects. It is a search for the conditions that make it possible for some activities to be more durable than others. More than anything, it is a study of the practices that make a business more or less feasible. Put differently, it is a study about problem solving. To a great extent, then, this thesis is about work. A lot of work. Work that needs to be organized in space and time. Work in process. Thus, in the empirical Chapters you will meet busy entrepreneurs actively casting their ordering webs around themselves. But there is more to it. Sometimes I do not talk about these entanglements as such. For here and there I try to come to grips with issues that have more to do with social theory than with the businesses and ventures that appear in the empirical Chapters of this thesis. And sometimes my rhetoric takes a methodological turn - perhaps only to challenge the methods of scientific procedure that have virtually colonized the language of development economics and sociology.

Development economics and sociology: two disciplines, (too?) many paradigms. The fact is, small-scale enterprises have been central in the agenda of these disciplines for a long time. More recently, policy makers have also joined the debate and shown renewed interest in small firms. This interest has been spurred by expectations arising from success stories about the ability of small firms to adapt to crisis situations at the heart of capitalism itself.¹ However, whether or not the performance of small firms elsewhere meets these expectations is an open question. Although the literature on the theme suggests that there is a remarkable increase in the number and employment share of small firms in Third World economies, little substantial knowledge about them exists. A key issue here is the feasibility of small businesses. What firms are feasible? What are the conditions for their success? Do technology choice, flexibility, innovativeness or relative size determine the vitality of small firms? Or is it how they are organized, and in what institutional environment they operate, that is important?

These and related questions are important, I argue, because great hopes are placed on the role of small firms as a cure-all for economic crisis. Indeed, national and international agencies now dedicate a growing part of their resources to catapult the new key units of economic development: 'small firms' and 'the region'. Thus new policy initiatives and programs promoting small enterprises in a regional setting now saturate government agendas almost everywhere. In Mexico, for example, the Salinas administration (1988-1994) responded to the enormous growth of

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small-scale enterprise (both in urban and rural areas) by launching a number of large-scale programs that were expected to increase the competitiveness and productivity of the micro, small-scale and medium sized enterprise sector. In fact, the most important government programs under the Salinas administration concerned the creation of alternative income possibilities within this sector.² As soon, however, as policy initiatives and programs towards the sector are formulated, two immediate difficulties come to the fore. The first, as Pyke (1994:1) points out, is how regional governments and other regional institutions should act in order to develop their areas at a time of great international change, characterized by the emergence of strong global interdependencies and growing supranational powers, and the impingement upon localities of economic and political action initiated exogenously, beyond regional borders. This problem, of course, is linked to a second one: what 'small firms' should be helped? How should these firms be helped?

Both problems, I contend, arise from a very limited knowledge base about the dynamics of small firms: a knowledge base that reflects a vocabulary unable to identify a number of crucial issues. So, for example, concepts such as 'small firms' or the 'informal sector' hide more than they actually clarify. What is needed is another mode of understanding, a vocabulary that brings forward that which remains hidden by these slippery concepts. An idiom that does justice to the *heterogeneity* of firms. A language that gives priority to the way in which this heterogeneity is constructed, and which involves manifold struggles, negotiations and accommodations over a broad range of issues that are crucial for the operation of firms. In short, a vocabulary of problem-solving that is willing to tackle head-on the challenge of understanding the *organizing practices* that arise from actors' wills to bring about desired changes in the running of their enterprises (cf. Long and van der Ploeg 1994).

In order to understand the dynamics of small firms in general, and their feasibility in particular, altogether different questions need to be asked. It is not enough any more to look at the social, economic, or political factors that affect them in isolation from each other. Neither is it enough to cling to the received notions of people making, exchanging and consuming products and services in different 'spheres' of 'the economy'. Likewise, recourse to ideas about the cognitive characteristics of entrepreneurs, or to the diverse attributes of markets, seem hopelessly outdated. We need to go further, to create new ways of thinking about small firms. Ways that make visible what was heretofore invisible: the *making* of durable firms and institutions (and the institutionalization of specific practices); the globalization of the local (and the localization of the global); the fluidity of structure (and the structuring of fluidity). Indeed, to address these theoretical concerns we need to pose other questions. Questions that are not overloaded with assumptions about the

character of small entrepreneurs; questions that do not switch from vocabulary when referring to the social or to the technical; questions that do not change the grid of analysis by referring to 'individualistic' or 'societal' factors.

In this thesis I address some of the problems inherent in traditional sociological and economic theory by way of a threefold strategy. First, in the empirical Chapters I try not to fix the identity of entrepreneurs from the outset. Instead, I follow them in their strategies and stratagems - exploring how, in the process, they construct their identities (and that of others). In other words, *I study small firms, while suspending assumptions about their nature*. Second, I try not to impose my analytical categorizations upon the messy, heterogeneous social and material practices of entrepreneurs - that is, *I describe small firms without reducing entrepreneurs' practices to social (or economic, or political, or cultural) attributes alone*. Finally, I try to avoid making assumptions about a backdrop of social, economic, or technical factors affecting small firms. Instead, I start from the notion that the definition of the character of the backdrop is something that is itself at stake in action. Put differently, *I abstain from eliciting exogenous factors to account for entrepreneurs' actions*. These three starting points, I argue, offer new theoretical possibilities to reconceptualize the dynamics of small-scale entrepreneurial projects.³

Small firms and development: old ways of talking

The aim of this thesis is to cast new light on the phenomenon of small-scale enterprise. Before developing my alternative, let me first briefly illustrate the epistemological model I wish to counter. My main contention against 'traditional' ways of addressing small firms is that these make a habit of first defining the nature of small firms, then proceed to prescribe how to go about studying them. This usually - if not always - means either overemphasizing economic factors and downplaying social ones, or stressing social factors while bracketing the economic.

Where do these epistemological assumptions (and prescriptions) come from? As Foucault (1991) argues, the different perspectives of sociologists and economists have their own genealogies. Ideas, for example, equating small firms with tradition and economic backwardness or promoting modern, large firms as stepping-stones for economic progress and growth have a history to them. How did these ideas originate? What was the context that made it possible to think about the specific role of small firms in development? I contend that these stories, these genealogies, can to a certain extent be traced back - via liberal political

economists such as Smith, Ricardo, and Malthus - to the very beginnings of the Critique of Enlightenment.

From the time of Kant's *Critique of Pure Reason* onwards, what has been central in the sciences is the belief that it was possible to produce knowledge of unquestionable, universal validity not only about the natural world but also about social life and its guiding principles. This belief, of course, can be criticized from a wide variety of angles.⁴ For my purposes, what is crucial in the Critique is the *separation* between a natural world full of mute objects, and a world of culture full of human subjects. The natural sciences soon turned this newly found Nature into their private hunting ground, while nineteenth century political philosophers converted the human into the realm of their contemplations. Both camps build unassailable walls around their sciences by way of positivistic methods in the natural sciences and complicated hermeneutic spirals in the social ones.

It did not take long before the separation between the social and the natural sciences was emulated within the social sciences themselves. Thus, after Nature was severed from Culture, Economy was amputated from Society, Politics from Religion, 'modern' man from 'premodern' woman. Indeed, every field that could be stripped-down to a number of bare, essential laws soon became a fully-fledged science. This, then, is the characteristic of Modernity: the ability to separate everything that was formerly treated as part of one single cosmology. To take an example concerning *mezcal* (a strong liquor made in Jalisco; see Chapters Seven, Eight and Nine): what does this separation consist of? To consumers, distillers or sellers of the drink *mezcal* is a cosmology. To them, *mezcal* maps out a world in which markets, aromatic organic compounds, public health directives, volatile alcohols, tax legislation, land reform, the weather and heavy hangovers are all caught up in the same story and associated with one another. To them, the web is seamless (Hughes 1983): *mezcal* is a highly complex mixture of social and natural elements that cannot be dissected to show the particular 'nature' of the liquor. It is thus much more than a 'commodity ecumene' - which Appadurai (1986) defines as a transcultural *social* network of relationships linking producers, distributors and consumers of a particular commodity - for *mezcal* traces an abundance of elements that spill over the purely social, making it look like a bizarre monster to modern scientists. In contrast, scientists would warn distillers, drunkards or traders - distrustful creatures that they are - that they have it all mixed-up: their view of *mezcal* is distorted by religion, superstition, tradition. What is needed, the modern scientist would argue, is to apply reason to *mezcal*, and proceed to dissect it into its constituent parts. "Let us separate the economic from the social; chemistry from politics; taxes from drinking", she would suggest. "Organic compounds are the realm of chemistry; let chemists experiment with that. Public health is a medical issue; let doctors make their diagnoses. Markets

are for economists; let them provide us with appealing models. And let us leave the weather to the meteorologists." As to the hangovers: modern scientists do not suffer from them. They just don't mix their elements...

The new, modern ability to purify, that is, to separate all kinds of events into their constituent parts - and eventually attributing them to a Nature or a Culture pole - took root in the social sciences around the end of the eighteenth, beginning of the nineteenth century. In that period, the Modern Critique finally made it possible to distinguish between the laws of external nature and the conventions of society (Latour 1993:130). Modernizers were finally able to project all hybrid phenomena (like *mezcal*) either onto the domain of Natural Law (the World), or onto that of prejudice and ideology (the Word). As a consequence of this process of purification, economic behaviour was believed to be governed by the laws of Nature. Behaviour that was deemed non-economic was remitted to the realm of Society - which was thought to be tyrannized by human passions, interests or ignorance. Thus, in analogy to the first Enlightenment thinkers, social scientists such as Smith, Ricardo and Malthus - with a little help from the 'scientific method' of positivism - embarked on a crusade of demolishing the ill-founded pretensions of human fantasy in order to uncover the Laws of Nature. In other words, Enlightenment thinkers proposed to conceive the economy as a domain of *natural* law which, if left unobstructed, functioned according to its own internal laws which were inclined towards a state of social balance - a balance or equilibrium which, in Hirschman's (1977) words, was seen as "...coming by courtesy of the "invisible hand"". In contrast, 'society' represented 'non-economic', social or - as some authors have suggested - irrational behaviour often based on relations of reciprocity and redistribution.⁵

Once Economy and Society are separated and purified from each other's influence, it becomes possible to posit the idea of a *homo economicus* (the rational, atomized, self-interested individual who is minimally affected by social relations in his/her market competitive behaviour) and a *homo sociologicus* (whose behaviour is norm- or rule-guided) to provide a philosophical underpinning to both sides of the divide. In the course of a century now, proponents of both sides of this Great Divide have quarrelled about the alleged superiority of their models. One particularly lively form that this debate has taken is that between formalists and substantivists. The formalists argue that economic behaviour is heavily embedded in social relations in premarket (or premodern) societies, but that it becomes much more autonomous with modernization. Formalism thus "... sees the economy as an increasingly separate, differentiated sphere in modern society, with economic transactions defined no longer by the social or kinship obligations of those transacting but by rational

calculations of individual gain." (Granovetter 1992:53). Formalists sometimes stretch their argument and claim that "the traditional situation is reversed: instead of economic life being submerged in social relations, these relations become an epiphenomenon of the market" (*ibid.*, p.53). The substantivist school, associated with the anthropological work of Polanyi *et al* (1957) and with the idea of a moral economy (Scott 1976), challenge the formalists' view and contend that any kind of behaviour is, in principle, embedded in the daily flow of social relations: hence the market is immersed in social relations.

It is not my intention to review these controversies here. Suffice it to say that, historically speaking, the role accorded to small firms in economic development depends from which side of the Divide one is looking. For those anthropologists and sociologists who advocated the *homo sociologicus* position, as well as for those enlightened economists who tried to reunite the two poles again, it was clear that small firms had an important say in economic development. Thus by the mid-1950s, strong arguments in favour of small enterprises, such as labour intensiveness, adaptability, advantageous utilization of local production factors, reduced dependence on imports and their role in providing a seed-bed for indigenous entrepreneurial development, had already been confirmed (cf. Schumpeter 1934).

Supporters of the *homo economicus* position, however, 'won' the debate. They won in the sense that they were able to mobilize more 'allies'. That is, they mobilized the 'scientific method', used statistical data, or enrolled international agencies. Indeed, for decades there was a widely-shared understanding among mainstream development economists on how industrial societies evolved. According to this understanding, rapid modernization and a 'take-off' (Rostow 1963) into self-sustained growth could only be achieved by a strategy of accelerated industrialization based on capital intensive, large enterprises that utilized modern technology. According to one authoritative scholar (Mingione 1991), development economists clung to this modernization model precisely because it conformed closely to the classical economy assumption of the existence of *homo economicus* and its corollary proposition, that of the market paradigm. Again, what these assumptions - which are supported by the majority of social scientists - suggest is that the market is separate from, and autonomous of, social conditioning. That is, the market is an entity that is totally separated from the social. Hence most social scientists consider the market to be the dominant form of social behaviour or the dominant structuring force in social life. From the point of view of the market paradigm, social context exists only as a subproduct of market interaction (cf. Mingione 1991:5).

In the context of theories of economic development, especially in Third World regions, the force of this analytic model based on the market paradigm proved formidable. Indeed, the model was pivotal for the

construction of the very notion of 'underdeveloped economies'.⁶ Two influential economists - Nurkse (1953) and Arthur Lewis (1954), both quoted in Escobar (1995) - can be seen as having laid down the foundations for this notion. As Escobar (1995:77) argues, the central discursive operation (which reflects the Modern Critique) of such models was the division of a country's economy and social life into two sectors: one *modern*, the other *traditional*. Development, in Nurkse's and Lewis' eyes, consisted of the progressive encroachment of the modern upon the traditional. This image soon found its way into national governments, the United Nations, the ILO, the World Bank and the IMF.

The effects of this conception were immense since tradition was equated with economic backwardness. As a consequence, the 'traditional' sector was at best seen as playing a transitory role towards a higher stage of development - and thus only needed in countries that were passing through an early phase of industrialization (cf. Piore and Sabel 1984). It was expected, or hoped, that in the course of economic maturation, small firms would gradually decline in favour of large-scale businesses. At worst (cf. Lewis 1954, quoted in Escobar 1995), the so-called 'traditional' sector was thought to have no contribution whatsoever to the process of development and, therefore, had to be obliterated as soon as possible if economic growth was to occur.

Small firms and development: the return of the vanquished

By the early 1970s it became evident, however, that something was wrong with the prediction that development based upon the modernization model would bring about equity and progress for all. Vast and growing discrepancies in real-term incomes both within but also between countries became more apparent. Together with this trend, a large increase in the number of small-scale economic activities co-existing alongside large enterprises could be observed. This of course posed an insurmountable problem to proponents of the market paradigm (cf. Mingione 1991). Indeed, for a large and growing part of Third World populations only a strong embeddedness of market relations in relations of reciprocity and redistribution made life minimally bearable. With this evidence, the model of atomized, individual competitive behaviour as independent from the moral, ethical, and religious principles inherent in local social institutions collapsed. As it turned out, the very idea (and idealist position) that an analytic concept such as *homo economicus* could control or grasp an object situated 'out there' in 'The Economy' was doomed to failure.

Consequently, new theories were designed, tested, overhauled, provided with fashionable *neo-* or *post-* prefixes, or plainly abandoned to their fate in the "garbage dump of history". New concepts snatched the

spotlights for a while, then slowly waned. These days other, more appealing theories such as flexible specialization or regulationist theory preach from the high pulpit of science. There, they are allowed to reign unchallenged - until of course more attractive ideas push them off the cliff to join their predecessors.

Today, when opening the file on theories of small firms one can characterize three different positions. A first line of (policy-oriented) research stresses the dynamic and sheltered potential for economic expansion and employment inherent in small firms. Indeed, at the beginning of the 1970s, there was an increasing awareness that most developing economies could not incorporate the growing urban labour force into the labour market - despite the fact that some countries were achieving prolonged periods of high growth rates. This realization was accompanied by a re-emergence of the issue of the role of small firms in the development process. The increased attention to small-scale economic activities reached a climax with the promotion of the concept of the 'informal sector' by the ILO's Kenya report (1972)⁷, meaning by this those small-scale economic activities characterized by "family ownership, small scale of operations, use of labour-intensive production methods and adapted technology, reliance on indigenous resources, unprotected labour, ease of entry and unregulated and competitive markets" (ILO 1972:6).

Alternatively, a second line of (theoretical) research emphasizes the explanation and/or understanding of small-scale economic activities in relation to capitalist and traditional modes of production and the structural position of small firms in regimes of accumulation and regulation -both in the First and the Third World. This approach replaces the formal/informal dichotomy with a model conforming to the variable articulation of capitalist and non-capitalist forms and modes of production within the context of concrete social formations (Prattis 1987:31). Subsequent fine-tuning of the model introduced the category of 'simple' or 'petty' commodity production⁸ (Bienefeld 1975; Ennew, Hirst and Tribe 1977). 'Petty commodity production' signified that individuals or households could not reproduce themselves without some involvement in commodity circuits, and that the general 'logic' governing economic life and livelihood strategies was that of capitalism (as summarized by Long 1986:12-13). This insight appeared to be corroborated by a wide body of evidence stemming from the patterns of uneven growth that characterized the Third World in the 1960s and early 1970s, and which had produced an expansion and diversification of different forms of small-scale enterprise which could not be interpreted as transitional or residual (MacEwen-Scott 1986:3). The major achievement of this approach - which will further be referred to as the commoditization theory - is that it contradicted the

prediction that small-scale, non-capitalist enterprises would in the long run wither away in the face of capitalist expansion.

A third, and more recent line of research on small firms that takes a middle-of-the-road position between practical and theoretical concerns, is that avowed by proponents of the flexible specialization paradigm. Originally, the model of flexible specialization was advanced by Piore and Sabel (1984), who contrasted it with the model of industrialization based on a Fordist type of production organization. As these authors argue, the deterioration in industrial performance in a number of Western countries results from the limits of rigid, mass production systems in which mass goods are produced using standardized machinery and unskilled workers. As an alternative, Piore and Sabel propose the flexible specialization model. In particular, they emphasize the decentralization of big factory chains and redeployment of productive forces into small units that can take advantage of flexible technologies. This, they argue, would enable crisis-ridden economies to react to ceaseless changes by introducing manufacturing systems capable of making specialized goods using multi-purpose, flexible machinery and skilled labour (cf. Hirst and Zeitlin 1991:2). Although of a Western genealogy, the applicability of the flexible specialization model for the Third World has been explicitly discussed by Schmitz (1990) and a number of colleagues (Pedersen 1989, Rasmussen 1992, Spaeth 1993, Sverrisson 1993). Methodologically, the flexible specialization approach is very appealing because its general argument is that the strength of small-scale enterprise cannot be comprehended by examining individual firms. Rather, these firms are seen as organizations interacting within highly volatile, sometimes chaotic, but nevertheless identifiable networks. As Pedersen *et al* argue (1994:15), in these networks entrepreneurs associate with workers, traders and other participants in utilizing available and adaptable techniques, thus forming a collective production unit or 'meta-enterprise'.

Small firms and development: new ways of talking, or the same old wine in new bottles?

The pros and cons of the theories discussed above notwithstanding, one question would be in place here. How far have we really travelled since Smith, Ricardo and Malthus? The question is pertinent because, as I will argue, most new theories dealing with small firms are to a larger or lesser extent based on the same triad of assumptions that are made by the modernization model they criticize. The first assumption is often referred to as *essentialism*. As Woolgar (1988:55) contends, essentialism underlies the metaphor of scientific discovery,

"... the idea of dis-covering, [which is] precisely that of uncovering and revealing something which had been there all along. One removes the covers and thereby exposes the thing for what it is; one pulls back the curtains on the facts. The image derives in part from the notion of geographical discovery. One travels to a distant place and finds (comes upon or otherwise stumbles over) what was already there. The crucial part is the prior existence of the discovered object."

In the context of the economics and sociology of development, essentialism implies that as soon as a phenomenon that is deemed 'economic' and inexplicable in terms of existing concepts is found, new concepts are invented ('commoditization', 'fertility rates', 'underemployment', 'literacy', and so on). As the object of (economic) science, these concepts are thus thought to stand for, represent or translate a real and objective life that enjoys a pre-existence that is independent of the way it is perceived. Thus economic essentialism can be seen as the reduction of complex social behaviour to a pre-existent, theoretical model of The Economy (as that body that unites 'commoditization', 'underemployment', 'fertility rates', 'literacy' and so on) which may be 'discovered' on the basis of logical reflection by trained, positivist economists who follow the rules of 'scientific method'.⁹

A case in point is the discourse that has constructed the notion of 'underdeveloped areas'. For example - and following classical economics - development economists assumed that 'Progress' was an attribute of 'Nature'. In other words, progress was seen as inherent in a natural state of affairs.¹⁰ This essentialist idea came back in the form of a belief that "progress was inherent in nature and that the task of the scholar was to discover the pattern of its unfolding and recommend policies that would hasten its inevitable attainment" (Greenfield *et al* 1979:6). Note, however, what is entailed in this. By equating economic progress and Nature, a linearity is built into the analysis - a linearity that can eventually be measured with the aid of concepts such as 'rural underemployment', a 'low level of industrialization', a 'set of obstacles' to industrial development, a 'disadvantage' in international trade and so on (cf. Escobar 1995:75). Other 'measurement sticks' that have structured the discourse of development include 'uneconomic' use of resources due to small size of enterprises, 'rural overcrowding' or 'traditionally determined behaviour for the bulk of the populace' (Leibenstein 1957).

Crude essentialism, however, is not the exclusive right of modernization theories. The articulationist school, for example, can equally be brought to task for its reliance on the metaphor of progress as a natural condition. This is evident in the work of authors such as Meillassoux (1981), who tried to explain the survival of pre- and non-capitalist relations of production as a structured feature of capitalism. However, right

from the start Meillassoux takes for granted - and this is the essentialist assumption - that there actually exists something like capitalist and pre-capitalist relations of production that are independent from the scientific gaze. Hence theoretical frameworks are constructed which maintain that, although functional to capitalism, over the long run non-capitalist relations will inevitably follow a 'natural' course and end up converted into capitalist ones.

Yet, what does one do with concepts such as 'capitalism' - that primeval essence - if one takes the position that the term is itself a social construction? I suggest that, instead of taking for granted these grand essences, one should take seriously the question of the extent to which the features, characteristics and definitions of economic phenomena first and foremost reflect the classificatory practices of social scientists themselves, rather than the 'actual' or 'objective' character of these phenomena. What does this mean in relation to the different discourses about 'the economy' or 'economic development'? The point is simple. There is no such thing as 'the economy' or 'economic development' that is independent of our way of conceiving them (cf. Strathern 1980). These terms are nothing more than a means to represent the invisible, to create an object. But what is it that makes it look as if 'the economy' is something pre-social, something universal? Maybe it is more fruitful to ask what makes 'the economy' appear as self-evident, and perhaps even a 'natural' field of activity in any society? For there is nothing essential in 'the economy'. After all, before one can meaningfully start talking about it, one needs to make visible the invisible world of exchanges. As Latour (1990:38) argues, 'the economy' is plainly invisible as long as cohorts of inquirers and inspectors have not filled in long questionnaires, as long as answers have not been punched onto cards, treated by computers, and analyzed by economists. It is only at the end that an aggregate hybrid called 'the economy' emerges from the piles of charts and lists.

Clearly, then, the relationship between the object ('The Economy') and its constituent phenomena is no more than a practical exercise of social scientists. A practical exercise which, as Foucault tells us, creates a Panopticon that tries to mould and control its subject. Of course, 'The Economy' - whether socially constructed or not - is now a 'fact' - and this has consequences. And I think one should certainly direct attention to the power effects thereof. But one should also be careful not to preempt the debate by acknowledging that to talk about 'the economy' is nothing but an attempt to exercise power on economic subjects: after all, the discourse of social scientists tells precious little of the stuff from which the daily life of those concerned is made of.¹¹ Indeed, most of the time economic subjects simply do not care about that what economists or sociologists have to say about them. In this respect, scientists' pipe-dreams can in fact be read like an ironic reversal of Foucault's Panopticon. As Zizek (1991:92) sharply comments, in Foucault's writing

the horrifying efficacy of the Panopticon is due to the fact that the subjects (prisoners, patients, factory workers) can never know for sure if they are actually being observed from the all-seeing central control tower. This very uncertainty intensifies the feeling of menace, of the impossibility of escape from the gaze of the Other. Conversely, in the economists' Panopticon workers, traders, housewives, and so on are actually observed all the time by the economist's watchful eye. But far from being terrorized (as Foucault suggests), the observed simply ignore this gaze and go on with their daily business. On the contrary, it is the economist himself, the center of the Panopticon, its all-pervasive eye, who is terrorized, constantly looking out of the window, anxious not to miss some crucial detail.

In the end, the effect of essentialism is that it brings about a lack of fit between economic discourse *on* the identity of producers, consumers etc. and the discourses *of* economic actors themselves. Flesh-and-blood social actors always present economic discourse with a significant surplus of meaning - a surplus which cannot be explained away by elegant theoretical models. To name but two examples: informal sector studies, and the flexible specialization paradigm. Both stress the actual (informal sector) or ideal typical (flexible specialization) *existence* of formal and informal sectors, or of Fordist and Post-Fordist production regimes. Apart from the difficulties entailed in identifying particular enterprises as clear cases of formal/informal, or of mass production/flexible specialization, there is the problem of a misplaced emphasis on the transition from one 'order' to the other - be it from the formal to the informal or vice versa; or a replacement of mass production by flexible forms of industrial organization. What we see here, again, is the operation of the same essentialist assumption made by classical economists and followers of the articulationist school. For them, it is a given that social order in the form of 'the formal economy' or 'mass production' exists.

Next to essentialism, a second - and related - assumption often made in theories about the role of small firms in economic development is that two different types of economies exist *within* one single spatial configuration. This is what is usually called *dualism*. Clear-cut examples include explanations that locate small-scale economic activities within the realm of 'the traditional' (Boeke 1953), the 'bazaar economy' (Geertz 1963) or the 'informal sector' (ILO 1972). Common in these dualist theories is the idea that each segment of the economy is homogeneous and possesses its own principles in the organization of production, distribution and exchange. This assumption, which leaves little room for the understanding of the interconnections between the 'traditional' and the 'modern' or 'formal' sectors, lies at the heart of a number of critiques that have been levelled at the limitations of dualist theories (Breman 1976; Bromley and

Gerry 1979; MacEwen-Scott 1979; Moser 1978; Peattie 1987; for a critique in the Mexican context see Connolly 1985; Roldán 1985).

The case of the articulationist school¹² is somewhat different because it sidesteps the pitfalls of crude dualism by treating capitalist and non-capitalist relations of production as *relational* categories. Nevertheless, the perspective remains dualist by taking capitalist and non-capitalist relations as a point of departure - no matter how relational its treatment thereof. Likewise, the flexible specialization model is essentially dualist in its aim to demonstrate the displacement of mass production by flexible specialization as the dominant technological paradigm. This, as Sayer and Walker (1992:199, quoted in Murdoch 1995:741) argue, hinders recognition of the fact that "... industry has always combined flexibilities and inflexibilities" and that such combinations "cannot be grasped by inflexible dualistic frameworks which counterpose the old as the inflexible to the new as flexible". Here, indeed, we find one more instance in which economic subjects (industry; firms) confront theoretical models with a surplus of meaning.

It would certainly be fruitless to negate the impact that dualistic conceptualizations have had on social relations at a global level. Indeed, the divides are painstakingly enforced by international organizations, economists, bureaucrats and even the police. But the point is this: the divides created by dualist theories do not represent any natural boundaries. They may be useful for teaching or intervening in one form or another, but they certainly do not provide any explanation. On the contrary: these divides are themselves the very things to be explained (cf. Latour 1990:20).

Next to essentialism and dualism, another common assumption in need of demystification is that of *reductionism*. Reductionism is closely related to the modern-traditional dichotomy in the sense that, by splitting one pole from the other, one of them (often the traditional) is made remote or reduced. As Law (1994:12) explains, the usual argument in favour of reductionism is that it is practically effective: a few principles may explain a great deal, like the case of economics.¹³ However, as Law stresses, one should note what is entailed in reductionism:

"First, you need to draw a line between two classes of phenomena by distinguishing those that drive from those that are driven. And second you claim that the behaviour of the latter is explained -often you say caused- by the actions of the former. So the danger is this: that you ... [drive] a wedge between those that are doing the driving and the rest. And (this is the real problem) the former get described differently, or not at all. So reductionism often, perhaps usually, makes distinctions that may come to look strangely like dualisms."

Reductionism becomes apparent in the flexible specialization model and in most studies of the informal sector (cf. Laenen 1992). In the case of the former, the 'driver' takes the specific form of the political, economic and institutional environment which has been constructed by large private or public enterprises, and which is rarely supportive and often discriminatory (Späth 1993). Here the institutional environment is already identified as the driver, and the internal organization of the firm thus automatically becomes the driven. Similarly, most informal sector studies see informality as dependent and subordinate - or indeed a response to - the formal sector. Here, again, a wedge is placed between the driver (conditions in the formal sector) and the driven (economic behaviour in the so-called informal sector). In the same vein, within the commoditization thesis it is argued that market forces - in the form of commoditized relations - increasingly shape individual economic decisions (e.g. Bernstein 1986; Goodman and Redclift 1985; Hart 1982). Once again, here a lever is forced between the driver (market forces) and the driven (decision-making). This is not inconsequential because such an assumption deals inadequately with the non-commoditized side of the equation and introduces an asymmetry in the analysis - which in the end leads to an unwarranted linear view of change. A related consequence of conceiving of commoditization as the motor of change and decision-making, as the wagon that automatically follows afterwards, is that the sphere of production is prioritized over and above the work and the networks needed to sustain and reproduce household and/or enterprise labour, the social organization of consumption, or the importance of gender relations in the actual structuring of the labour process (cf. MacEwen-Scott 1986; Pahl 1985; Whatmore 1988:248). Another effect entailed in reducing individual decision-making to 'market forces' is that much of the cultural and ideological dimension of petty commodity production, distribution and exchange is made invisible. Moreover, if commoditization is seen as the driving force, and actors are assumed to be no more than passive mediators in the process of commoditization itself, one can never bring into the picture what the commoditization of the different moments of production, exchange and consumption might mean for the enterprising practices of the actors concerned (cf. Long 1986). Blindness to these issues leads to the unqualified conclusion that market integration opens the road to the individualization and atomization of the social environment of small-scale entrepreneurs (e.g. Friedmann 1981) who, consequently, only maintain commoditized extra-household relations. In this case, reductionism prevents one from taking into account inter-household cooperative strategies, or the way in which actors help one another in the organization of their respective enterprises, often through non-commoditized relationships (Smith 1989).

It is not within the scope of this thesis to provide a full explanation for the assumptions made, and the divides created by social scientists who talk in the name of 'the economy' or of 'economic subjects' such as small-scale entrepreneurs. I leave that to others. At the risk of caricaturing, in this Chapter I nevertheless addressed these assumptions and divides because they are a part of the image I - like Andrónido, that other iconoclast - want to let burn in hell. In what follows, I try to evade the common traps every participant in the social sciences is faced with. I am aware that this is a difficult undertaking for, like all other social scientists, I myself also participate in an academic discourse that was constructed long before my arrival. But, like the entrepreneurs of the empirical Chapters of this thesis, I will try to re-associate, rethink some of the elements that are crucial for my own enterprise: to think differently about the phenomenon of small firms. And, perhaps - if only in a flash - by so doing I will let entrepreneurs' many - not one - voices be heard. You, the reader, are the final judge. Only if the stories that follow make a bit of sense to you will I consider my task accomplished.

Notes

1. See especially the flexible specialization literature on the Terza Italia (Becattini 1989; Brusco 1986), Baden Württemberg (Haüsler 1992) and Scandinavia (Asheim 1992; Håkansson 1989).

2. These programs included PRONASOL's *Empresas en Solidaridad* and NAFINSA's *Empresas Integradoras*. Their relative significance is evident if one considers the recent change of focus of the official *Banca de Desarrollo* (Development Bank). Up to 1993, this Bank channeled resources to the agricultural sector through BANRURAL and FIRA; but from 1993 onwards, the Development Bank directed most of its capital through *Nacional Financiera* (NAFIN) and the *Banco de Comercio Exterior* (BANCOMEXT) in an all-out attempt to make competitive micro-, small-, and medium-sized enterprises. To give an idea of the dimension of this endeavor: until 1993 all credit for the more than 2,000 *paraestatales* (government-owned enterprises) was disbursed through NAFIN. The amount credited to the former *paraestatales* is now being channeled to micro-, small- and medium-sized firms, and is being financed by the surplus on the national balance of payments obtained through the privatization of nearly 1,000 state-run enterprises during the Salinas Administration (including the largest company in Latin America, TELMEX, as well as 18 commercial banks).

3. My strategy bears more than a superficial resemblance to an actor-oriented perspective as formulated by Long (1992). Compare, for example, my points of departure with the following statement: "an actor perspective ...seeks to uncover the interactive processes by which social life is constructed, reproduced and transformed. It finds no place for the notion of 'structure' as a set of external forces or conditions that delimit or regulate specific modes of action. Instead it focuses on how so-called 'externalities' are mediated by the strategies, understandings and commitments of different actors and actor-networks, thereby generating a variegated pattern of social forms that represent differential responses to similar 'problematic' circumstances". (Long and van der Ploeg 1994). The present study, however, differs from an actor-oriented perspective in that the concept of agency is treated differently. See Chapter Two for a development of this difference.

4. So, for example, we have postmodernism and poststructuralism. Nevertheless, one could argue that many so-called postmodern and poststructuralist authors find their *raison d'être* in denouncing or exposing the basic beliefs of Enlightenment thinking - a critique of the Critique. This in no way brings one any further in coming to grips with the central problem of the Critique: its separation of the knower and the known.

5. Although it does not lie within the scope of this thesis much, of course, can be mustered against both neo-classical and neo-liberal economic thought. Their account of behaviour, as Alexander (1992) argues, is derived from explicitly theoretical and reductionist models, which are not grounded, except by way of experimental simulation or anecdote, in empirical evidence. Such models clearly rule out alternative lines of interpretation that include any consideration of power and knowledge, or any conception of human agency that is not atomized or undersocialized. As Granovetter (1985) contends in an influential article, economic theory therefore vetoes *a priori* any impact of social structure and social relations on production, distribution, or consumption. Indeed, in the ideal markets of economists' thought, anonymous price-taking buyers and sellers equipped with perfect information need not sustain continuous social relations because neither of them is able to control aggregate supply or demand or, therefore, prices or the terms of trade. I thank Norman Long for the observation that the same may be said in the case of idealist sociological concepts such as 'petty commodity producers' used by e.g. Friedmann (1981).

6. Much has already been written on the way in which this object was constructed, and I will not repeat the argument here. See Escobar (1995) for an excellent (though to an extent generalizing) study of the depoliticized construction of the duo 'development' and 'underdevelopment'. For more modest, ethnographically based examples, see Ferguson (1990) on Lesotho and de Vries (1992) on Costa Rica.

7. The term 'informal sector' was introduced by Hart a year before the publication of the ILO report. See Hart (1973) for a fuller elaboration of the term.

8. See MacEwen-Scott (1986:98-99) for a discussion of the difference between these concepts.

9. This point of view, of course, poses an additional problem. As studies in the sociology of science have shown, attempts to specify one or other criteria of demarcation (for example 'the economy' as something different from 'society') ignore what turns out to be a fundamental characteristic of science, namely that it is constantly open to renegotiation and reclassification (Woolgar 1988:20-1). For a similar argument from the standpoint of economics, see Hirschman's *The Passions and the Interests* (1977). After Kuhn (1962), to claim to have 'discovered' new, fundamental economic behaviour cannot but elicit a big yawn.

10. This essentialist idea underlies the writings of such disparate contemporary authors and institutions such as Schumpeter (1934), Rostow (1963), and the World Bank (1991).

11. See Cicourel (1964) for a beautiful example of the gulf that separates contingent individual decisions that may lead to pregnancy, and indicators usually utilized in the discipline of demography.

12. For the sake of brevity, I consider the commoditization thesis under this conceptual model.

13. For important exceptions see the work of Schumpeter (1934) and Polanyi (1957). For more contemporary exceptions (of a social reductionist kind), see Granovetter (1985).

CHAPTER 2

BRIDGING THE GAP

Inter-firm Co-operation and Collectifs

As I suggest from the summary overview of studies on small firms (Chapter 1), it is appalling to note that the vast majority of them offer explanations that hinge on that ruthless triad of 'isms': essentialism, dualism, reductionism. Of course, differences between the studies exist and some of the explanations would probably be exonerated on one or two counts. Yes, there exist studies that bypass dualism by pointing to the interrelatedness of, for example, formal and informal activities.¹ And yes, there exist other studies that skilfully dodge crude reductionism and make reference to the social, political and economic 'embeddedness' of small firms. And maybe there even exist instances of non-essentialist studies (although so far I have not encountered any).

If, however, one wishes to reconceptualize small firms, then the first step is to look for explanations that avoid essentialism, dualism and reductionism of one form or another. Next, one would have to go beyond the debate between formalists - who maintain a preeminence for *homo oeconomicus* - and substantivists - who persist in championing the salience of *homo sociologicus*. This dualistic debate, which runs like a red thread through the discussion of the role of small firms in development, needs to be replaced by a perspective that favours the continuity between the economic, social, and political 'domains' (as well as the technical; more on this below). These 'domains' or 'spheres' have to be analytically brought together again in order to open up new theoretical gateways.

In line with my critique on 'traditional' ways of studying entrepreneurial projects, the examples of small firms in this thesis avoid the traps of dualism, essentialism and reductionism. To do so, I first discuss two theoretical frameworks that provide useful insights into the study of entrepreneurial activity: flexible specialization and the actor-oriented approach. Drawing upon their shortcomings, I then elaborate on actor-network theory - a body of work developed in the context of the sociology of science - to address the two guiding questions of this thesis:

- a. how can one account for the heterogenous processes that shape the projects of small-scale entrepreneurs in a rural area of Western Mexico, *without* recurring to dualistic frameworks and notions of a pre-established context or an autonomous content?
- b. under what conditions are durable (i.e. feasible) entrepreneurial projects constructed?

The small-scale variant of the flexible specialization approach

As I stated in Chapter 1, during the past ten years or so sociologists and anthropologists have shown that the standard models of small firm development are flawed. Small firms rarely grow in a predictable and unilinear manner within a relatively stable social, political or economic context. Neither do they wither away in the context of increased 'capitalist' relations or globalizing tendencies. Models which assume this cannot explain small firms' radical, and sometimes revolutionary, character. Instead, new directions in the study of small scale enterprises suggest that small firm behaviour stems from interactions between a large number of diverse actors. One useful notion to understand these interactions is that of *network* - generally defined as a specific type of relation linking a defined set of persons, objects or events (Mitchell 1969; Perrow 1993).

More recently, the idea of taking networks of firms as the analytical point of departure has gained currency in debates about the viability of small-scale enterprise forms.² Of these, arguably the most advanced approach is that of 'flexible specialization' developed in the context of advanced economies by Piore and Sabel (1984). Flexible specialization may be defined as "... a technological paradigm or ideal-typical model of industrial efficiency: the manufacture of specialized goods using flexible machinery and skilled labour" (Hirst and Zeitlin 1991:2). The model was used by Piore and Sabel to contrast it to Fordist mass production in which mass goods are produced using standardized machinery and unskilled workers. The concept of flexible specialization has been used in the context of the debate on industrialization in the heart of capitalism itself, particularly in small firm industrial districts of the Third Italy (Becattini 1989; Brusco 1986) and Germany (Häusler 1992), where small enterprises have shown their economic strength in times of crisis. Of late, a number of interesting studies that take flexible specialization as their framework have been carried out in developing countries (cf. Alba and Kruijt 1995; James and Bhalla 1993; Kaplinsky 1991; Pyke et al 1990; Sverrisson 1994; Schmitz 1995; see also the volumes edited by Pedersen et al 1994 and Späth 1993). The general argument is that the strength of small-scale enterprise cannot be comprehended by examining individual firms. Rather, their vitality lies in the trust engendered by *networking*, the effect of which is shown by collective efficiency through clustering, cooperative competition, and an increased ability to adapt and innovate. Flexible specialization thus offers the methodological advantage that the individual enterprise cannot be understood in isolation from the specific environment in which it is operated (Pedersen et al 1994).

Flexible specialization, which is increasingly gaining space within international agencies (like the ILO) concerned with the support and development of small firms in underdeveloped regions, thus starts from the notion that small firms participate in a variety of networks that span

the economic, the social, the political, the technological, and so on. As flexible specialization suggests, small firms are an effect of these networks, while at the same time they influence and help shape them. In addition, flexible specialization makes the point that co-operation of some form may arise when there exists some sectoral and geographical clustering of the enterprises involved in the network. In fact - and this is the main argument of the flexible specialization approach - in such an environment competition may be tempered by co-operation, thus opening the way for flexibility and innovation processes which are both seen as crucial for the collective survival of enterprises in times of economic adversity (Schmitz 1992; see also Piore and Sabel 1984). Furthermore, clustering or agglomeration may be an actively pursued strategy "whereby producers ease the task of transactional interaction because proximity translates into lower costs and wider opportunities for matching needs and capabilities" (Scott and Storper 1992:17).³ Examples abound: whole regions or medium-sized cities that specialize in the production or marketing of specific goods, such as for example the shoe industry around the city of León in Mexico (Morris and Lowder 1992) or the Sinos Valley in Brazil (Schmitz 1995). Other examples would include whole neighbourhoods in larger cities that cater for specific customers: automobile repair shops, textiles, and so on.

The empirical evidence provided in these examples seems obvious enough, but the question is whether flexible specialization can come to grips - both theoretically and methodologically - with the dynamics and co-ordination of small-firm networks. Can it help one to identify the points within a network where accumulation occurs? Can it help one locate innovation? Is it useful to indicate which networks are able to reproduce their activities through time? Although the flexible specialization model represents a step forward in the debate around the role of small firms in development because non-dualistic emphasis on *networks of firms* as its main unit of analysis, some of their findings are difficult to generalize, if not untenable. So, for example, the empirical finding that "inter-firm collaboration between small firms generally requires some kind of external catalyst or brokerage role" (Pyke 1994:121) brings us back to a rather crude form of reductionism. According to the flexible specialization model, this brokerage role is often located in State and regional agencies, technical institutes and service centres, or trade unions and associations. However, one should not take these conclusions at face value. Indeed, the suggestion that what makes the model of flexible specialization tick is to be located *outside* the firm proper seems to be an unwarranted one, and at least contradicts the evidence from my own fieldwork.⁴ In fact, to draw on some of the conclusions of this thesis, struggles and negotiations to separate that which is defined as 'context' and that which is defined as 'content' are crucial for the operation of small firms. The final (though temporal) outcome of these struggles and negotiations may sometimes

incorporate the institutional environment into the 'content' of activities (that is, they are crucial), while at some other times this environment may be defined as 'contextual' (less crucial) or not relevant at all.

Again, the problem with reductionist accounts of one form or the other is that they are not merely rhetorical but in fact may have consequences. For example, locating 'prime movers' in the realm of State agencies could lead to policies that emphasize the role of these institutions in the development of the potential of small-scale enterprise. Although there may be nothing essentially wrong with this, the question remains in how far these types of diagnosis are related more to theoretical constructs than to the actual *practices* of small firms.

Studies on flexibly specialized small firms, then, at first sight seem to be well equipped to identify the prime movers of networks. Looking more closely at these studies, however, one could conclude that flexible specialization is less proficient in uncovering the dynamic processes leading to the emergence of these prime movers.

✓ An actor-oriented approach to the study of small firms

The flexible specialization model, as suggested above, does not take the *practices* of entrepreneurs in earnest, and instead presupposes the existence of a context that is independent of the content of entrepreneurial activities. If one sees this as problematic (as I do) and wishes to overcome it, then clearly one needs to embrace a position that does not start from a dualist theoretical architecture while retaining what is useful in the flexible specialization model: its focus on networks. One such position is the actor-oriented approach (Long 1984 and 1989; Long and Long 1992). Like the work on the small-scale variant of flexible specialization, the actor-oriented approach posits that actors participate in networks or collectives which implicate a wide range of other participants. In addition - and this is the trademark of the approach - an actor-oriented perspective on small-scale enterprises reveals the dynamics of networks by acknowledging the diverse practices of the actors involved. These practices, or so the thesis suggests, may be differentially related to a so-called institutional environment. Furthermore, and contrary to flexible specialization, an actor-oriented perspective does not start by defining the character, the shape, or the morphology of the networks in which actors participate. Rather, the approach allows entrepreneurs to do this definitional work. In this sense, the point of departure of the actor-oriented approach intersects with Latour's notion of *following the actors* (1987): no analytical imperatives or methodological precautions (e.g. in the form of correctly carried out surveys) will enhance or replace this work done by entrepreneurs themselves.⁵

By conceptualizing actors (such as small firms) as partaking in networks, and by focusing on practices, the actor-oriented approach is, in principle, a useful candidate to cast new light on the dynamics and feasibility of small-firms. But how useful is it in practice? To answer this question demands a short detour into its history and conceptual structure. At first, the actor-oriented approach ensued from the theoretical crisis which had come to impinge on the business of finding a definitive answer to the problems related to Third World development. These problems were either associated with the way in which the capitalist mode of production structured peripheral areas, or with the ways in which particular strata of Third World populations responded to specific structural conditions.

In fact this theoretical crisis reflected a divide between, on the one hand, macro-sociological theory that dealt with aggregate structures, patterns of growth and the laws of capitalist development (e.g. modernization theory and neo-Marxism) and, on the other hand, more anthropologically-oriented micro-perspectives that explored the local strategies and cultural dispositions deployed in the face of processes of structural change (cf. Long 1977, 1984; Booth 1985). The crisis was, of course, epitomized in the different sub-areas of the discipline. Depending on the specific interests involved (e.g. the discussion of state institutions, political cultures or social transactions), the grid of analysis invariably changed whenever macro- or micro actors were addressed. Consequently the study of human behaviour was all but ignored in macro-perspectives (Marxism, structural-functionalism) or, as in the case of micro-approaches (phenomenology, ethnomethodology), agency was denied to any type of composite actor. The reason was the *a priori* postulation of the existence of actors of different size. Hence, analysis of how variations in size were socially constructed in practice was not considered. Unawareness of actors' embedded practices thus seriously obstructed more promising theoretical insights and lines of research.

Pinpointing this deficiency, Long (1989) and Arce and Long (1987; 1992) set the first steps to reverse the trend. Both authors forwarded the need to focus on practices in order to seek a way out of the theoretical impasse, and showed a strong concern for empirical processes through the use of detailed ethnographic accounts. Focusing on the analysis of (interface) situations, Long explicitly addressed the importance of integrating actors' practices within an analytical framework that simultaneously problematized the relationship between micro- and macro-actors. To this end, Long utilized three central concepts: agency, knowledge, and power.⁶

Although Long opened up new analytical ground with his approach, more detailed reading of his oeuvre brings forward an inherent tension between agency, knowledge and power - a tension that to a degree flaws the thrust of his perspective. This tension is due to Long's

recurrence to an essentialist notion of human agency. More specifically, Long's approach attempts to force a marriage between, on the one hand, a humanistic interpretation of agency and, on the other, power and knowledge which suggest an altogether different epistemological origin. This is evident in his approach to power (1992:27), which is

"... not simply something that is possessed and accumulated. Nor can it be measured precisely in terms of some notion of quantity or quality. It emerges out of processes of social interaction and is essentially a joint product of the encounter and fusion of horizons".

A similar stance is taken on knowledge, which is conceived of as being jointly created through processes of negotiation in social encounters. Indeed, both knowledge and power closely dovetail in the actor-oriented approach. Supported by Foucault⁷, Long (1992:27) argues that it is scarcely possible to talk about knowledge without addressing power at the same time:

"Knowledge encounters involve the struggles between actors who aim to enroll others in their 'projects', getting them to accept particular frames of meaning, winning them over to their points of view. If they succeed then other parties 'delegate' power to them."

Some problems become evident, however, when trying to ground the power/knowledge duo on a humanistic version of the concept of agency. Let me illustrate this suggestion by looking more closely at Long's usage of the notion of agency. Building on Giddens' notion of agency, Long portrays individual actors as 'knowledgeable', 'capable', and proficient members of society able to process social experience and cope with life. To this Long adds Hindess' insight (1986) that individual actors are not the only entities able to reach decisions. Since decision-making entails the use of a variety of 'discursive means' that are drawn from a stock of available discourses, composite actors such as enterprises, political parties, and other forms of organization may also be seen as loci of decision-making. Long gradually builds up his notion of agency by incorporating the position that agency is composed of social relations. Consequently, Long warns us that one must not equate agency with decision-making capacity alone. Effective agency also requires the organizational capacity to manipulate social relations and the ability to 'enroll' others into the agent's project. Pushing the argument further, Long advances the idea that *social actor* is a social construction rather than just another way of talking about the individual human being.

It is at this point that Long is on the brink of formulating a non-essentialist notion of agency. Yet after his treatment of the contributions of

Hindess and Latour, Long falls back to Giddens' structuration theory. This, I argue, prevents Long from developing in earnest the full implication of Hindess and Latour's position. Why? Simply because there are serious epistemological difficulties involved in Giddens' answer to what he sees as the central problems of contemporary social theory⁸. Although Giddens declares to have transcended the agency/structure dichotomy by linking them in a 'duality', in fact the very dichotomy is the foundation of Giddens' reconciliatory approach. Thus instead of overcoming the dichotomy between agency and structure, structuration theory in fact presupposes it⁹.

Through his eclecticism, then, Long carefully conceals this essentialist position in his treatment of human agency. A case in point is provided in a joint article on knowledge interfaces (Arce and Long 1992). In the opening sentence, both make reference to Schutzian phenomenology¹⁰ - thus in fact accepting subjectivity and agency as *given* qualities of human beings. Later in the article this is subscribed by pointing to the necessity of focusing on individuals' cognitive maps and the issue of tying action and meaning. Although Long is careful to acknowledge the discursive character of the knowledge processes he wishes to elucidate (1989:225), his focus on meaning and individual intentionality in fact reflects a belief in a knowable human rationality. Elsewhere (1989:237) this position is endorsed by referring to the issue of 'interlocking intentionalities'¹¹.

Long's ideas on individual agency, then, can be traced back to Giddens' structuration theory. And, in analogy to Giddens, so can structure. Thus it is only logical that structure is the corollary of Long's individual agent. This he makes clear in his treatment of the unintended consequences of social action (1989:228-9):

"whilst it is true that institutional forms do not strictly speaking have a "life of their own" - somehow beyond the reach of human agency - and are deeply engrained in everyday social practice, they do nevertheless possess characteristics that cannot be fully comprehended by merely dissecting the minutiae of social encounters."

In more recent interpretations (cf. Long and van der Ploeg 1995; Fisher and Arce, forthcoming), a gradual shift away from the implications of Giddens' dichotomy agency/structure can be noticed. Nevertheless, these new interpretations still espouse the humanist assumption that agency is a property of individuals, and not of things.

Towards a new ontology: people and things as *collectifs*

In this thesis, nevertheless, I defend some of the insights of Long's actor-oriented perspective. Thus I oppose the ideal ways in which sociologists learn about society (i.e. through statistical analyses, surveys, interviews and the like), and instead favour a focus on actors' everyday struggles and negotiations to achieve their projects. Like Long and the model of flexible specialization, I retain the idea of networks as a unit of analysis. And I certainly subscribe to the idea that power is not something an actor may possess, but rather a strategy that is exercised. Furthermore, I will not talk about power without talking about knowledge at the same time. What I discard from the flexible specialization approach, however, is its uneasiness to accommodate anything other than *social* actors into its theoretical architecture - thus in fact fatally misrepresenting the *practices* that lead to the achievement of 'co-operative competition', the ability to adapt and innovate, or the building of 'collective efficiencies' and 'clusters'. In the same manner, from the actor-oriented perspective I abandon its specific notion of individual agency - which must ultimately assume the existence of an independent structure. Rather, my point is that by not according ontological primacy to either subjectivity or any background, (determinant) social structure one may indeed complement both the flexible specialization and the actor-oriented approach.

To develop such a framework, however, is not without problems. If we wish to retain what is good in flexible specialization and the actor-oriented perspective, then indeed we need to unseam the social and the economic in order to set about weaving a new, seamless fabric. This is a difficult step, for it entails deconstructing a distinction that is more enduring than the one between Economy and Society. A distinction that is implicated by every turn of the skein. A distinction not between economic and social subjects, but a distinction between these very subjects and physical objects. A distinction between Nature and Culture. What does this mean in the context of a study on small firms? Quite simply, what it means is that one should try to seek a heuristic flattening of the differences between people and non-humans in order to understand the way things work together. In other words: it is not enough to look at the *social* (economic, political, religious) features of the networks that tie people together, but we must also look at the *technical* aspects that hold together these very networks of the social.

The first line of my argument, then, is that the separation of the social (including the political, the religious, the economic) and the technical in the analysis of entrepreneurs is first of all in the minds of analysts - analysts who, instead of following entrepreneurs as they weave their way through a disorderly horde of human and nonhuman allies, prefer to make up a double register where, on one side, humans are paired with humans and where, on the other, all the nonhuman elements

of the strategies they have to explain are lumped together. This Chapter, then, lays out a way to get rid of these twin artifacts - Society and Technology - and suggests that one reconciles them by "following the actors", that is, by placing ourselves in entrepreneurs' shoes.

To do so, in this thesis I rely on actor-network theory - a body of work developed in the context of the sociology of science. Following Bijker and Law (1992:12-13), this theory represents an attempt to find a neutral vocabulary to describe and explain the actions of what Law (1987) coins 'heterogeneous engineers'. The main idea is that these 'heterogeneous engineers' - such as the small-scale entrepreneurs of this thesis - build disorderly networks composed of social, economic, political and technical elements.¹² This means that actor-network theory avoids making assumptions about a backdrop of social, economic or technical factors: it says that the backdrop is something that is itself built in the course of building a network. The second line of argument of this Chapter, then, entails a dismissal of *essentialism*. In respect to essentialism, actor-network theory suggests that it is a misconception to think that entrepreneurs operate in a world given by naturally occurring categories or essences such as "content" or "context". Also, it says that it is too simple to argue that context is shaped by, or influences, content (and vice versa).¹³

As I argued in Chapter 1, the danger of essentialism (i.e. the existence of a context and a content that set the stage for entrepreneurial activities and which can be known *a priori*) is that it easily develops into *reductionism* of one form or another. Thus context 'drives' content (agents can only make local adjustments in a context established long ago), or content 'steers' context (interacting agents continuously create unplanned events which cannot be explained by virtue of what happened before or what occurs elsewhere). A third line of this Chapter, then, argues that the notions of content and context (and the danger of reductionism they entail) can be effectively countered by treating entrepreneurial projects as 'balancing acts' in which social and technical elements both from 'within' and from 'without' the project are placed side by side.

By taking this position, actor-network theory avoids making the commonsense assumption that people (entrepreneurs) and things are naturally occurring categories - the first endowed with agency, the second devoid of it. Thus, as Latour (1994:46) proposes, purposeful action and intentionality are not properties of objects, but neither are they properties of human actors. Rather, they are the properties of institutions, of *collectifs*¹⁴.

To state that humans and non-humans do not have a different ontological status is not a call to throw the baby out with the bathwater. In fact, much un-seaming and re-weaving has already been achieved by the best in anthropology and by 'trespassing' economists such as

Hirschman (1977, 1981). Their work is indeed basic for beginning to overcome the Critique's division, and should not be overlooked. But the history of science does not stop here. We have to push these insights further, to put back together what was never really apart. We have to bring what Latour (1988a) calls a Copernican counter-revolution to a good end. Looking at the technical as well as at the social does not narrow an already interesting debate. On the contrary, it opens up infinite possibilities. Just as the idiom of *desire* opened up a universe that had so far been dominated by concepts such as supply and demand, so a new discourse that incorporates objects into its vocabulary may open up novel roads that political philosophers thought forever closed. To take such a step, however, we must be willing to acknowledge that we live in a theoretical moment in which objects and subjects can be seen as composite actors or, better, *collectifs* of people-and-things.

To argue for the incorporation of non-humans into the analysis of *collectifs*, however, poses its own obstacles. Witness, for example, the debate between sociologists and economists on issues that have to do with the relationship between technology and society. This debate, driven by proponents of 'technological determinism'¹⁵ and 'social determinism'¹⁶, can go on forever as long as the common assumption is made that both society and technology exist independent of each other. Similarly, there are the debates in the sociology of science¹⁷ where there is a fierce battle between British and French sociologists over the issue of where to place the exact divide between humans and non-humans.¹⁸ If one assumes - with the French - that there exist no two different ontological categories (people and things) but that, rather, humans and non-humans are fused in *collectifs*, then surely 'traditional' definitions of collectives or of institutions (such as small firms) are of little help. Why? Because, as Latour (1994a:49) observes,

"...we cannot rely on how social theory defines these [institutions, collectives], since, for many sociologists, a social order is the source of explanation and not what needs explaining. These sociologists begin by delineating social phenomena, long-term social contexts, global institutions, overarching cultures; then proceed with what they take to be their important empirical task, to trace developments and transformations. It is a given, for them, that social order exists."

The problem here is that the 'social' order is taken to be just that: *social*. 'Traditional' definitions of collectives - not *collectifs* - then, are of little help because they do not include the constitutive role of non-humans.

These critical remarks open up new, challenging questions. Can we describe small firms without taking on board dualistic assumptions, reductionist accounts, or essentialist prescriptions? Can we write about

small firms without having to choose sides between formalists and substantivists? Can we, in addition, study hybrid institutions without treating them asymmetrically, that is, without tearing them apart and changing the grid of analysis whenever we shift from the humans to the nonhumans that constitute them? In other words, can we have our cake and eat it, too? More positively, can we fill the abyss between Economy and Society? Can we reconcile Nature and Culture? Can we bring these synthetic poles back together? My answer to these questions is a qualified YES! - an endorsement which thus sets the stage for this dissertation.

Bridging the gap: global networks, local networks, and obligatory points of passage

Let me provide a short vignette to make the notion of *collectif* more concrete. What, for example, does a commercial producer of plastified adhesive stickers in Guadalajara have in common with a proud father celebrating his daughter's *quinceños*¹⁹ (fifteenth birthday) in a hamlet in the Mexican countryside? The first is busy with an activity that could be termed 'economic', while the latter is busy organizing a gathering that could be termed 'social'. One could, of course, see these actors differently by emphasizing other aspects of their identities. Thus one could see the producer of stickers as enmeshed in technological relations involving pigments, complex polyurethanes, epoxy and a machine that pastes these three elements on a spool of paper. And one could see the proud father as conforming to local cultural norms and values. At any rate, both actors seem to belong to quite dissimilar worlds. To that of the Economy, Nature or Technology in the case of the producer of stickers, and to that of Culture and Society in the case of the father. *In practice* however both actors are linked to one another: the drink that is served by the proud father at the party in the countryside comes in bottles that carry the stickers made in the megalopolis by the profit-oriented, technologically skilful producer. In the example, we are dealing not with different worlds of Economy/Society or of Nature/Culture, but with hybrid collectifs. The starting point for this thesis, then, is not so much that of attributing behaviour to the realm of Culture, or things to the domain of Nature. Nor that of projecting relations that are mediated through the exchange of things on the axis of the Economy, while filing all non-market behaviour safely away into that cabinet we call Society. Rather, the theoretical point of departure of this thesis can be summarized with a simple question: how is a common, unified space between these binary poles created?

As stated above, the idea that one can follow entrepreneurial projects as they unfold in a given context that is separate from the content of the projects themselves is problematic. In analogy to one of the main findings

of the history and sociology of science, the strategies of firms often, if not always, turn first around the creation of a distinction between inside and outside, and second upon ensuring that whatever is inside becomes indispensable for those on the outside (cf. Bijker and Law 1992:304). What is needed is thus an analytical tool that allows for a description of the interrelatedness of the trajectories of firms and the co-evolution of their socio-technical context and content. Below, I develop a network metaphor to understand these processes.

According to Law and Callon (1992:46), the trajectories of projects can be seen as a function of three interrelated factors. The first function is the ability of a project to construct and preserve a *global network* that is intended to contribute resources to the project. These resources may be of various kinds: money, permits, political support, machinery and so on. The global network provides these resources because it expects a return. In case that a global network is successfully put together, the entrepreneur obtains a room for manoeuvre (a negotiation space) in which he or she can experiment at will - as long as the possibility of a return remains present.

The *second* function is the capacity of the project to assemble a *local network* by mobilizing the means contributed by the global network.²⁰ Again, the purpose of using these resources is to be able to reciprocate to actors from the global network (this may generally take the form of some sort of material or economic return, but need not be necessarily so: cultural objects of symbolic value may also flow from the local to the global network). If successfully constructed, a local network thus allows its originator(s) to experiment with and control the means provided by the global network, with the ultimate goal of offering a return of some kind to the different actors composing the global network. These first two factors (the construction of global and local networks) are thus a useful tool to answer the first research question of this thesis: how to account for the heterogeneous processes that shape the projects of small-scale entrepreneurs in a rural area of Western Mexico, *without* recurring to dualistic frameworks and notions of a pre-established context or an autonomous content?

The *third* factor is the degree to which an entrepreneurial project succeeds in imposing itself as an *obligatory point of passage* between the global and the local network. This means that, if successful, the project should first have the ability to shape and mobilize the local network and that, second, the project is able to exercise control over all exchanges between the local and the global network. In other words, if actors from the global network count on or have an interest in a promised final return, then the producers of this return (and the material, economic, or cultural return itself) become an obligatory point of passage. If unsuccessful, that is, if unable to impose itself as an obligatory point of passage, an entrepreneurial project cannot profit from the local network, and

neither has it command over the use and mobilization of resources from the global network (and which may ultimately be withdrawn). The notion of *obligatory point of passage* is thus a useful tool to address the second research question of this thesis: under what conditions are feasible entrepreneurial projects constructed?

Defining feasibility in terms of global and local networks and obligatory points of passage offers the advantage that it permits one to avoid observer-defined accounts of it. Thus one can sidestep economists' definitions of feasibility or viability which refer to a break-even point, or sociologists' cherished notions - difficult to operationalize - of 'social security' or the 'potential' of firms to reproduce themselves in time. And neither does one have to deal with tortuous definitions of 'sustainability' - as is usual within 'green' circles.

In addition to being useful tools to define feasibility, the notions of obligatory points of passage and global and local networks allow one to conceive of feasibility as a temporal condition: whenever support by a global or a local network is withdrawn a project ceases to act as an obligatory point of passage - which amounts to stating that the enterprise loses feasibility.

Morphology of *collectifs*: convergence and momentum

Global and local networks - *collectifs* - may stand in a specific relationship with one another, that is, they may be differently articulated. Another way of putting this is to say that *collectifs* may have multiple morphologies. Thus the entities making up these *collectifs* may converge or diverge, be more or less standardized, and their relationships may be long- or short-lived to different degrees.

A useful concept to estimate the morphology of a *collectif* is that of convergence²¹ or the degree of integration of a *collectif*. In a situation of convergence, for example, the activities of all actors from the global and the local networks can be easily linked to each other and each actor can in principle mobilize other actors. In other words, any actor belonging to the *collectif*, whatever its position within it,

"... can at any time mobilize all the network's skills without having to get involved with costly adaptations, translations or decoding. The [*collectif*] as a whole is behind any one of the actors who make it up." (Callon 1992b:223)

Convergence within a *collectif*, of course, does not mean that actors consciously work towards a common objective. Rather, it means that actors have sufficiently fine-tuned their activities so as to make them compatible with those of other actors from the same *collectif*. This, of course, need

not always be the case. In such a situation, then, it would be more meaningful to speak of divergence. This latter situation - divergence - can be illustrated through the example of Carlos, a street vendor selling tacos in El Grullo (see Chapter 4 for a fuller elaboration). In this case, a client who has eaten tacos at Carlos' stall complains about intestinal disorder. Here Carlos has a choice between three modes of action. First, he may take responsibility for the damaged intestines by acknowledging the cause of the complaint. In most cases, however, Carlos will contest the accusation: what makes her so sure the tacos are responsible for this condition? Could it not have been something else? Did she wash her hands before eating the tacos? Here, the clients' definition of Carlos as the responsible party is contested, and does not converge with the definition of the problem according to Carlos. The translation is thus incomplete. The third alternative is for Carlos to accept the charge - for example because more customers have come to him with the same complaints - and delegate responsibility to others within the *collectif*. For example, Carlos can take the complaint to the abattoir. There, the criticism can only be translated into a solvable problem if there exists a management system that makes it possible to track down the origin of the meat sold to street vendors such as Carlos. Since this is not usually the case, turning the complaint into a solvable problem is ruled out, and the client's accusation simply does not find a target. Here the interdefinitions of the actors involved conflict with one another: the actors participate in a dispersed network. As a consequence, co-operation between them may be unlikely or limited.

To varying degrees, then, small firms participate in *collectifs* that may have different degrees of convergence. In order to gauge these degrees of convergence, one can use the related concepts of *translation* and *co-ordination* (Callon 1991; 1992). By translation is meant the process whereby global and local networks are composed and obligatory points of passage created - in other words, the process that creates a shared space that was absent before the initiation of a project.

Following Callon (1986), for analytical reasons the process of translation can be separated into four moments: *problematization*, *interessement*, *enrollment* and *mobilization*. Problematization is the process by which a project becomes indispensable to global actors by defining the nature and the problems of the latter and then suggesting that these can be resolved by following the path of action suggested by the project. The next step, *interessement*, are those methods by which the project attempts to impose and stabilize the identity of the global actors defined in the *problematization*. In other words, *interessement* is the process of translating the images and concerns of a project into that of a global network, and then trying to discipline or control that translation in order to stabilize an actor-network (cf. Star 1991:33). As already stated, these actor-networks include people, the built environment, machines,

signs and symbols, inscriptions, etc. Interessement, however, does not necessarily lead to alliances, that is, to actual enrolment. Interessement achieves enrolment if it is successful. To describe enrolment is thus to describe the group of multilateral negotiations, trials of strength and tricks that accompany the interessements and enable them to succeed. Enrolment, in other words, is the successful distribution of roles as proposed (and most probably changed) by the project in the initial problematization. Finally, if interessement is successful, that is, if enrolment has been achieved, then one can speak of the mobilization of the network of entities involved. To put it differently, with mobilization is meant the successful translation of a network of entities: a global network provides resources for an expected return, a local network is created that allows for some room for manoeuvre for the project to supply this expected return, and the project itself becomes an obligatory point of passage, that is, it is able to exercise control over all exchanges between the local and the global network.

Translation, then, involves all those methods by which a specific definition of a problematic situation - its character, cause and probable solution - is construed and made indispensable for others to follow. To visualize one and the other, let us take the case of Matilde, a small-scale producer of *mezcal* who - back in the 1970s - sold his unbottled liquor to local customers and passers-by. When, in 1978, a federal health law was passed that prohibited the sale of bootleg *mezcal*, officials closed the distillery. To start operations once again, Matilde had to register with the Federal Taxpayers' Registry and the Ministry of Health, and provide evidence of this by displaying product stickers on sealed bottles. In this case, a local network (all the people and things needed by Matilde to actually distil *mezcal*) and a global network (mainly: consumers) existed prior to the enactment of the new law, and Matilde's *mezcal* was in fact an obligatory point of passage between the global and the local network. The new law, however, put an end to this relationship, and demanded that Matilde problematized the situation differently if he were to succeed in selling *mezcal* once more. In this new problematization, Matilde could only convince consumers that his was still the best *mezcal* to soothe their thirsty throats *if* he could persuade authorities that his product complied to ongoing health standards, that he was wilful to pay taxes, that he would provide evidence of this through product stickers, and that he would henceforth sell *mezcal* in sealed bottles.

Matilde's problematization of the new situation evolved into interessement: within a few months, he obtained the permits needed, placed an initial order with a producer of glass bottles, and procured a couple of thousand product stickers. With these new allies, a new attempt to bridge the gap between an expanded local network (which now included federal authorities and producers of bottles and product stickers) and a global network (consumers) was made. Eventually, Matilde enrolled

enough customers to keep his business going (that is, interessement was successful).

Finally, the network of elements involved in the new setup was mobilized and *mezcal* once more became an obligatory point of passage for all actors involved in the local and the global network. In the new configuration however, *mezcal* (now in a bottle and provided with a sticker) was easier to transport, thus making it possible for distributors to find consumers in distant places. In effect, then, Matilde's new problematization was *translated* to involve a local and a global network that were much greater in scope than the prior ones.

A second concept that is useful to measure the degree of convergence of a *collectif* is what Callon (1991, 1992) terms *forms of co-ordination or translation regimes*. By this is meant the existing set of rules and regulations that have been produced in past interaction, and which impinge on the character of any *collectif*. So, for example, who or what is to count as an actor, or who or what may speak on behalf of others, is normally laid down in a series of rules and conventions that range from formal law to tacit and culturally specific practices. Some of these rules and conventions are of a general character. Examples could be the passing of a Federal Health Law, the requirements to obtain a loan from a bank, or the conditions of payment for merchandise that is provided in a contract. Yet other rules and norms are of a more 'local' character, that is, they lose their validity outside the *collectif* that produced them. Examples could be agreements between *mezcal* producers about pricing policy; the creation of local organizational forms such as associations or co-operatives; or the technical norms concerning the production of specific goods.

The distinction between general and local rules and conventions is important because it helps one to discern the specific form of co-ordination of a *collectif*. So, for example, Callon (*ibid.* p.87) suggests to use the term *weak co-ordination* to "characterize a network which has not added on any local rules and procedures to conventions generally followed at any given moment." Inversely, the term *strong co-ordination* can be used to denote a *collectif* shaped by both local and general rules.

From the above it should be clear that a combination of the concepts of translation and translation regimes can be helpful devices for 'measuring' the degree of convergence of a given network. Indeed, the stronger the translation and the form of co-ordination of a given *collectif*,

"... the more the actors composing it *work together in a common enterprise*, without their status as actors being under constant challenge. This does not mean that everyone does the same thing. Rather it quite simply means that any one actor's

activities fit in easily with those of the other actors, despite their heterogeneity." (Callon 1992:87; emphasis mine).

Next to convergence, a concept that is of central importance to gauge the morphology of a network is that of *momentum*. This concept refers back to that of translation, and suggests that the latter has been 'locked into place'. According to Callon (1991:140-50), the momentum (which he terms 'irreversibility') of a translation depends on two factors:

- (a) the extent to which it is subsequently impossible to go back to a point where the translation was only one amongst others; and
- (b) the extent to which it shapes and determines subsequent translations.

To exemplify the notion of momentum, let us take the example of a *mezcal* producer opening a credit line at a bank. Once the operation is legally sanctioned by some form or document, it becomes difficult if not outright impossible for the parties to withdraw from the agreement and go back to the beginning of the transaction - when multiple alternatives for obtaining credit may have been open for the producer. At the same time, the credit line may shape future decisions: specific goals that were impossible to achieve without credit can now be pursued.²²

In a sense, then, momentum denotes the way in which the past engages the future.²³ More generally, *momentum* has to do with the evolutionary process in which a project passes from a stage of uncertainty to a stage in which certain trajectories stabilize. Put differently: how heterogeneity makes place for homogeneity. This is often the case when a project is successful, i.e. able to present a result (Nothnagel 1996): when ideas (which are debatable) make way for finished objects (which are less debatable).

Prime movers, distributed action and black-boxed actors

So far, I argued that the notions of global and local networks and obligatory points of passage can help one to illuminate issues to do with the dynamics and feasibility of small entrepreneurial projects without having to resort to externalist explanations.

One important additional point is that it is not necessarily people, but also *things* that could in fact be the obligatory points of passage between a global and local network - as I showed through the vignette on *mezcal*. This point - that both humans and non-humans may be the obligatory point of passage between two networks - can be generalized through the notion of *intermediary*. As the etymology of the word implies,

inter-mediaries mediate between two or more parties, thereby constructing a whole, a common space, a network or a *collectif*.

The notion of intermediary is useful because it brings together the poles of Economy and Society (the separation of which, I argued, inhibits rather than illuminates the practices of small firms). How is this possible? As Callon (1991) suggests, this can be achieved by juxtaposing the insights of economists and sociologists. For example, "The Economy", as defined by economists, is that domain in which people are brought into relationship with one another through the exchange of *things*. Translated into my analytical framework, a project often relates a local and a global network via a product. According to Callon (1991:134), this situation can be generalized by means of the notion of an *intermediary*, which "*is anything passing between actors which defines the relationship between them*". Examples of intermediaries abound: *tacos*, bricks, *mezcal*, bottle stickers, skills, texts, money. The list is endless. Contrary to economics, in sociological theory "Society" (the behaviour of actors) can only be understood when it is set in a context that has been build by the actors themselves. Thus sociologists speak of roles and functional prerequisites (Parsons 1977), agents and fields (Bourdieu 1989), etc. In fact, or so these disparate sociological theories suggest, no actor can be isolated from the relationships in which he or she is implicated. What does this mean in terms of creating a common space between Economy and Society? Here Callon (*ibid.* p. 135) presses the point to its logical consequence²⁴:

"Economists teach us that interaction involves the circulation of intermediaries. Sociologists teach us that actors can only be defined in terms of their relationships. But these are two parts of the same puzzle, and if we fit them together we find the solution. This is that *actors define one another in interaction - in the intermediaries that they put into circulation*".²⁵

When successfully translated, actors are able to communicate through the intermediaries that circulate between them and which define both of them simultaneously. For example, a *taco* passing hands between a vendor and his client simultaneously defines the identity of both in that encounter: the vendor as the seller of a service, the client as the buyer of it. In this case, the degree of convergence is strong because the translations (both by the vendor and by the client) are relatively similar. Of course, successful translation need not always take place, or be only of a weak character. Taking the same example, this would be the case when the client doubts the quality or the value of the *taco* and refuses to buy it.

To summarize: entrepreneurial projects try to construct and set in motion local and global networks, and they may become obligatory points of passage between the two networks through the circulation of intermedi-

aries. This, however, leaves one with the question of who or what is the prime mover of the *collectif*. To stay with the vignette on *mezcal*: Who is the prime mover of action? Authorship of action can, as the vignette suggests, be attributed to different entities. It may be attributed to the project (Matilde). But it may also be attributed to the local network (the Ministry of Health). Or to the global network (consumers). Action is, in fact, a polycentric process. Who or what the 'prime mover' is, is a matter of convention, and depends on who or what one chooses to follow. Likewise, within my framework the notion of 'actor' does not refer back to some fixed essence (such as, for example, the capacity to "have" agency). Rather, the identity of an actor is relational, and refers back to notions of sociality and materiality. Thus in the vignette on *mezcal*, the identity of the actor "*mezcal*" is different when it is bottled and provided with a sticker. In the same vein, the identity of Matilde changes when it is associated with bottles and stickers. He is not any more a producer of illegal *mezcal*, but a producer of legal *mezcal* that can be transported and sold in far-away localities. Another way of putting this is to say that Matilde is *another* subject because he is now associated with *mezcal*, bottles and stickers. And that bottles and stickers are now *different* objects because they have entered into a relationship with Matilde and *mezcal*. Indeed, as Latour (1994a:33) suggests, neither subject nor object are fixed entities. Both change their properties when they become a gathering, a *collectif*, a hybrid actor made up of people-and-things.²⁶ The point here is that we must give full credit for action to those agents or *actants* which we normally call nonhuman (like *mezcal*, bottles or stickers).²⁷ Responsibility for action must, in other words, be shared, distributed. Indeed, action itself cannot be conceived of as being caused by a human (or by a nonhuman, for that matter). Action is a composition of relations between associated entities. *Mezcal*, bottles, stickers: they authorize, they enable Matilde's project just as Matilde, bottles and stickers allow *mezcal* to be consumed in far-off localities. As Latour (*ibid.* p. 35) succinctly puts it:

"The attribution to one actor of the role of prime mover in no way weakens the necessity of a *composition* of forces to explain the action. It is by mistake, or unfairness, that our headlines read, 'Man flies', 'Woman goes into space.' Flying is a property of the whole association of entities that includes airports and planes, launch pads and ticket counters. B-52s do not fly, the U.S. Air Force flies. Action is simply not a property of humans but of an association of actants..."

But how come we do not see these compositions for what they are, that is, impure hybrids of the social, the technical, the political, the economic and all the rest? Why is it so difficult to talk in terms of these *collectifs*? Why do social scientists speak of Matildes' and consumers, of micro- and

macro actors? How is it that we prefer to make reference to punctualized actions, to black-boxes, instead of describing the complexities that are part and parcel of *collectifs*? Following Law (1992) this is because, in practice, network patterns may become routines. For example, not all entities involved in exchange (Matilde, *mezcal*, consumers) need to be defined all over again in each routinized exchange encounter. The *collectif* behind *mezcal* can (and is) simplified, punctualized, black-boxed. All that matters is that the actor-network, the exchange, works. Once simplified, the network can be *assumed* to act as a disengaged block - a punctualization that enables a language of 'prime movers', of 'causes' and 'effects'. Apparently simple elements - Matilde, *mezcal*, bottles, stickers and consumers, to name a few - may, if only for practical purposes, masquerade as the *collectif* of which they are an effect.²⁸

To summarize this point: what is central to putting together global and local networks is

"a concern with how actors and organizations mobilize, juxtapose, and hold together the bits and pieces out of which they are composed; how they are sometimes able to prevent those bits and pieces from following their own inclinations and making off; and how they manage, as a result, to conceal for a time the process of translation itself and so turn a network from a heterogeneous set of bits and pieces each with its own inclinations, into something that passes as a punctualized actor" (Law: 1992:386).

How can we open up these punctualized compositions, these black-boxed *collectifs*? My answer is: through *de-description*, through the opening up, the exposition, of the *trajectories* of networks that end up being punctualized. This means that one has to follow politicians, *mezcal* producers and so on, in their work of defining the characteristics of their objects (i.e. laws, liquor, consumers). It means that we have to follow actors' hypotheses about the entities that make up the world into which their objects are to be inserted. In other words, of how lawmakers or *mezcal* producers

"... define actors with specific tastes, competences, motives, aspirations, political prejudices, and the rest, and [of how] they assume that morality, technology, science, and economy will evolve in particular ways" (Akrich 1992:207).

Indeed, a large part of the work of entrepreneurs is that of *inscribing* this vision of (or prediction about) the world in the content of the intermediaries they bring into circulation. The end product of this work, following

Akrich, can be termed a 'script' or 'scenario'. Of course, in practice it may be that actors do not wish to perform the roles set out for them by the entrepreneur, since they may define their roles differently. If this is the case, then the envisaged intermediaries never become real. So the point is this: to ascertain whether entrepreneurial projects become real or remain unreal. This problem can be approached by following the negotiations between entrepreneurs and potential users, and to study the way in which the results of such negotiations are translated and inscribed into another matter. That is, one should describe, in detail, *the production of a relationship* between both parties. The methodological consequence is that one

"cannot be satisfied with the [entrepreneur's] or the user's point of view alone. Instead we have to go back and forth between the [entrepreneur] and the user, between the [entrepreneur's] projected user and the real user" (*ibid.* p.209).

Let me return to the example of Matilde's *mezcal* and approach it from a different perspective. Here one can discern a trajectory from situation A in which the Ministry of Health has virtually no control over producers of distilled spirits, to a situation B in which autonomous Mexican producers of liquor have been transformed into more-or-less controllable subjects through the imposition of a law. What we have here is a chain of associations, but a rather odd one at that. It is a chain that does not take the form of language, but of signification. In effect, the associations have been punctualized, inscribed into objects that are of a different matter. A bottle and a sticker take us to a human lawmaker. A lawmaker that *delegates* (Latour 1994a) language and writing to bottles and stickers. Underlying this punctualization, this black-box, however, is a trajectory that implicates a world of conflicts, accommodations and negotiations. A world which needs to be opened up. Which means that one needs to do the opposite of what the actors (inventors, entrepreneurs, manufacturers and so on) do: namely, to de-scribe inscriptions. In other words, it means that one has to follow the script and what happens to it when it is 'out there' in the real world, putting together a whole geography of responsibilities. One needs to de-scribe, to open up the complex of trials of strength that involve, in our example, bureaucratic rationalities, the definition of health problems, and the solution of both through the passing of specific legislation. To de-scribe is, as the verb suggests, to deconstruct what has formerly been constructed - that is, to follow the work of inscription. Work that is often laid down through heterogeneous means.

Summary: argument and organization of the thesis

Following up on the previous Chapter, the present Chapter has as its starting point the challenge to sidestep the dangers entailed in most studies on small firms, namely dualism, essentialism, and reductionism. To do so, I first reviewed two theoretical frameworks - flexible specialization and the actor-oriented approach - that seemed promising for the analysis of the dynamics and feasibility of small-scale entrepreneurial projects. Both, however, were found lacking on a number of counts. In the case of flexible specialization, this was the separation of context and content and the externalist identification of 'prime movers'. For the actor-oriented perspective, it was its essentialist notion of human agency which was found to be defective.

After developing these points of critique at some length, I then argued that a useful framework that sidestepped these deficiencies while retaining what was valuable in flexible specialization and the actor-oriented approach was that of actor-network theory. I then argued that this theory, developed in the domain of the science studies, offers a promising potential for accounting for the dynamics of small firms in general, and for their feasibility in particular.

In a nutshell, the argument ran that an entrepreneurial project is feasible when it is able to act as an obligatory point of passage between the local and global networks it helps construct. To be able to gauge whether or not this is the case, I then suggested - again supported by actor-network theory - that projects are feasible when the global and local networks they put in place are convergent and have a momentum of their own. Convergence, I argued, could be operationalized as that situation in which translation is successful (that is, when problematization, interessement and enrollment lead to mobilization) and where a regime of translation exists (that is, when local rules are added to global ones). As regards momentum, I argued that this is the case when it is impossible to go back to a situation in which a specific translation is only one out of many alternative courses of action, and when subsequent translations are in turn shaped by earlier ones.

Above, we have seen that the morphology of *collectifs* may be different in respect to their degree of convergence and momentum. Indeed, or so I argue, the dynamics and feasibility of small firms can be associated to both dimensions. In Chapters Four through Nine I spell out or describe in more detail these dynamics from the point of view of a number of small-scale entrepreneurial projects. Thus in Chapters Four and Five I develop two in-depth case studies of relatively unsuccessful entrepreneurial projects, and argue that these participate in *collectifs* that are divergent and have no momentum of their own. In Chapter Six, I contrast this situation with one on the production of services in which convergence and

momentum are nascent. These cases are then compared with a series of cases that span the production and distribution of *mezcal*, and in which the degree of convergence and momentum is higher (Chapters Six through Nine). Finally, in Chapter Ten I draw a number of general conclusions that follow from the case studies. Also, in this final Chapter I return to the issue of why it is important to look at the feasibility of small firms in rural areas of developing regions. Here the focus is on the possible spin-offs that the analysis I propose might have for policies towards the so-called 'small-scale enterprise sector'. Before I present my case, however, in the next Chapter I present what I call 'the politics of research', that is, I describe the genealogy of the research, as well as the methodological implications that follow from the theoretical framework I utilize.

Notes

1. See, for example, Castells and Portes (1989:11) who state that the informal sector "... is a common-sense notion whose moving boundaries cannot be captured by a strict definition without closing the debate prematurely". A similar view is heralded by a recent report of the Dutch National Board of Advice (1989: 19), which refers to the informal sector as being a 'notifying concept' that cannot be clearly separated from other economic activities. In the same line of thought, Marcuse (1989:700) argues that formulations as 'formal' and 'informal' sector put "... a layer of timeless muddy words over a set of very specific historical circumstances", and stresses the strong interrelationship between formal and informal activities in a 'multidimensional reality' which is specific for time and space.
2. See for example the volume edited by Thompson *et al* (1991) which argues for intermediate theoretical categories such as networks that make for a less ambitious - compared to 'big-isms' such as liberal-pluralism, Marxism, structuralism, Fordism and their 'neo' equivalents - and more modest claim on how the social is organized. See also Perrow (1993) who argues that networks of small firms are diverse and possibly durable economic phenomena that deserve attention, and that conventional economic theories and leftist theories in particular have failed to grasp in their importance.
3. Scott and Storper are careful to add that clustering alone does not necessarily lead to the formation of efficient transactions, and point to breakdown in information exchange or failures of trust as examples that may work against the achievement of collective efficiency.

4. This, I presume, has to do with the theoretico-methodological architecture of most research on flexible specialization, which by its very (quantitative) nature is compelled to locate 'prime movers' in the networks of firms under study (cf. Sverrisson 1993; Morris and Lowder 1992).

5. The advantage of this approach is the elegance of its relative simplicity: it obviates the need (as in flexible specialization or in systems theory) to legislate between what counts as part of the network, and what not, for this is an empirically observable matter. In addition, by *following the actors* one does not have to start with 'points of departure' or 'prime movers' in a network. Indeed, if we leave the issue of defining who co-ordinates the network in which small firms are inserted to the participating actors themselves, we may end up with different versions. Depending on who we decide to follow, each time we may obtain a distinct account.

6. This position enables Long to offer, in principle, a conception of action that is consistent with the contingent nature of social life. Interestingly, in so doing Long provides a link with writers such as Foucault (1979) who much favour a nominalist position in which 'one-off' explanations enjoy preference over approaches that seek 'patterns' or 'trends' and explain everything from the perspective of the same 'general laws' and 'causes'.

7. According to Foucault (1979:27), "We should admit rather that power produces knowledge (and not simply by encouraging it because it serves power or by applying it because it is useful); that power and knowledge directly imply one another; that there is no power relation without the correlative constitution of a field of knowledge, nor any knowledge that does not presuppose and constitute at the same time power relations."

8. These problems are: interpretive sociology's lack of an institutional account; structural functionalism's lack of a theory of agency; and the lack of a theory that connects an institutional account with a theory of agency.

9. I take this point from Hekman (1990).

10. Based on an Enlightenment conception of the subject/object dichotomy, Schutz supports a humanist paradigm and its basic postulate that all meaning is constructed through the intentional acts of the individual ego. In other words, Schutz misunderstands how language operates in the constitution of the ego and thus seriously plays down the discursive character of social interaction. This is obviously antithetical to Long's conception of power/knowledge as being socially constituted.

11. In this instance, Long makes explicit reference to the Theory of Games - an example of subjectivist, hyper-rationalist discourse.

12. In a sense, actor-network theory has much in common with some versions of systems theory (cf. Hughes 1983). However, unlike systems theory, actor-network theory stresses that the elements (including the entrepreneurs) bound together in networks are, at the same time, constituted and shaped in those networks.

13. This line of thought, which is currently *en vogue* in much sociological writing, finds its expression in theories on globalization. So, for example, Giddens (1990:64) defines globalization as "the intensification of world-wide *social* relations which link distant localities in such a way that local happenings are shaped by events occurring many miles away and *vive versa*." From an actor-network perspective, essentialist definitions of this kind can be held wrong on two counts. The first one is that globalization suggests that relations are *social*. This contradicts empirical evidence, which shows instead that every lengthening of a network in space and in time not only incorporates more and more humans, but also more and more non-humans. We may all be closely linked with Chilean kiwi producers, Japanese environmentalists or the struggle of Zapatista rebels. But take away the ships, the newspapers or the internet and time-space decompresses immediately. A second misunderstanding has to do with tautology or the conviction that global society exists and that, hence, one needs to develop a vocabulary that accurately reflects globalization - as for example in the work of Wallerstein (1990) or Sklair (1991). This vocabulary is often of a deterministic kind and tends to render opaque the very processes through which heterogeneous socio-technical networks extend in time and in space. In other words, the terminology of globalization has the effect of folding or black-boxing the scope and scale of the reconfigurations it sets out to explain.

14. The notion of *collectif* as developed by Callon and Law (1995:487) differs from that of *collective* or *collectivity* in that the former is not an assembly of people who have decided to join some form of common organization. Rather, a *collectif* is an emergent effect created by the interaction of the heterogeneous parts that make it up. In other words, it is the *relations* - and their heterogeneity - that are important, and not the things in themselves.

The notion of *collectif* also retains the main idea of Callon's concept of *techno economic network*, which he defines as a "coordinated set of heterogeneous actors ... who participate collectively in the conception, development, production and distribution or diffusion of goods and services, some of which give rise to market transactions." (1992:73).

15. Technological determinism is "the theory that technology is indeed an independent factor, and that changes in technology cause social changes. In its strongest version, the theory claims that change in technology is the most important cause of change in society". (MacKenzie and Wajcman (1985:4).

16. The position that technology is socially determined (e.g. Braverman 1974).

17. See the articles in the volume edited by Pickering (1991) for a presentation and discussion of these.

18. As Star (1991:30) summarizes this battle, the British sociologists argue that there is, and should be, a moral divide between people and things, and that attempts to subvert this divide are dehumanizing ones. This position, of course, returns one to a primitive realism of the sort we had before science studies. The French, on the other hand, focus against 'great divides', and seek a heuristic flattening of the differences between humans and non-humans in order to understand the way things work together.

19. A *quinceaños* is the celebration of a woman's fifteenth birthday. It is an important social occasion at which the woman is symbolically "presented" to society as a potential candidate for marriage. At *quinceaños* usually large amounts of money are spent on dresses, food, drink, and music. Also, *quinceaños* offer a good chance for the establishment of *compadrazgo* (co-parenthood) relations between the parents of the woman in question and her *padrinos* (godfathers) and *madrinas* (godmothers). These latter often carry a part of the financial burden of the huge celebration.

20. 'Global' does not necessarily mean geographically distant, and 'local' does not necessarily mean geographically close.

21. And, in its absence, that of *divergence*.

22. The courses of action that emerge from the issuance of a credit line cannot of course be determined *a priori*, but can only be decided by following the producer in his actual practice.

23. It is important to note, however, that momentum is a relational characteristic: its outcome depends on the strategies that different actors may bring into play.

24. Callon's attempt to bridge the gap between economics and sociology is certainly not the only one. See for example Vanberg (1994) who tries to associate the notion of norm- or rule-guided behaviour (*homo sociologicus*) on the one side, and that of rational, self-interested choice (*homo oeconomicus*) on the other. In this example, the very absence of things or intermediaries in the definition of behaviour takes Vanberg into a completely different direction.

25. Callon is quick to state that his solution for bridging economics and sociology is different from the notion of 'embeddedness' re-activated by Granovetter (1985), who sees networks as associations between humans only.

26. A parallel of this position can be found in Daly (1991) who refers to the concept of *radical relationalism*. Radical relationalism advances the idea that "nothing can be defined independently, or outside a set of differential articulations." To take the example of the identity of commodities, this would entail starting from the assumption that goods do not have an intrinsic, or essential, value (either in use or exchange terms), but that value is socially created in and through interactions (e.g. situations of exchange) involving different calculative domains (and this includes important *interfaces* between socially, politically and/or economically differentiated actors). The identity of any good will thus depend fully upon how it is articulated with a set of categories and practices within a given situation. It is important to note that Daly connects the concept of relationalism with that of *non-closure*. By non-closure she suggests that the *identity* of any thing (or, for that matter, of any practice), "can never be limited, or closed"; it can always be rearticulated within an alternative system of relational order. Thus for example the category of 'debt' may be constructed differently in a relational sequence involving *compadre*, 'brother', 'friend', and so on than within a loosely aligned network that draws together banks, wholesale markets, anonymous buyers at a supermarket etc.

27. Latour here suggests that we replace the notion of *agent* by that of *actant*: "Since the word *agent* in the case of nonhumans is uncommon, a better term is *actant*, a borrowing from semiotics that describes any entity that acts in a plot until the attribution of a figurative or nonfigurative role." (Latour 1994:33). Furthermore, the term *actant* "permits one to broaden the social to encompass all entities that interact within an association, thereby changing their properties." (Latour 1994b:601, my translation).

28. Thus a seemingly 'simple' exchange encounter *may* disguise, blur, render invisible complex sets of relations - collective agents - made up of humans and nonhumans. Here I emphasize '*may*' because, at any moment, the relationships between the different elements making up the collective may be problematized, questioned - thus opening up all the complexities involved and calling for new rounds of translation. See Chapter 6 for an example of this.

CHAPTER 3

CONSTRUCTING CASE STUDIES

The Politics of Research

In Chapter One, I maintained that studies of small firms can broadly be assigned to one of two camps: those that are theoretically driven, and those that are more policy-oriented.¹ Common to both is the problem of 'the small': what is to count as small-scale enterprise and what not? And how should they be classified? Although it is true, as Douglas (1992:2) comments, that a field of enquiry can only advance by deciding what is relevant and what is extraneous to it, there are several reasons to object to etic types of classification. The main reason is that such definitions and classificatory schemes often go hand in hand with epistemological absolutism - an absolutism, I argue, which characterizes both policy-oriented as well as theoretically-driven research on small-scale enterprise.

In the case of policy-oriented research, this absolutism entails that there is only *one* way of knowing, namely one that is instrumental, one that is geared to act upon the known from a distance (Latour 1987). It is an epistemology that produces a discourse *on* the economic. A discourse which, in Foucault's (1979) terms, attempts to construct and domesticate the identities of economic subjects. It is a discourse that is normally identified with the State, corporate agencies, NGO's and a range of other participants in rural development. To provide an example: the definition of small-scale enterprise given by the Mexican government is based on the type of work performed: remunerated labour, in cash or in kind, which adds to the national accounts. What effects are created by endorsing such a definition? First, the existence of different forms of work relationships is obscured. Hence, a wide variety of home-based economic activities (particularly those that engage women) is missed, thus rendering invisible much small-scale enterprise in national accounts and development planning. A second, and arguably more important, effect is that categories and identities of economic subjects are thereby constructed. These are later used to intervene - i.e. to control the economy 'at a distance' - through tax legislation, specific accounting techniques, or structural adjustment programmes that impinge upon micro- and small-scale firms. But this absolutist epistemology is not only a way of knowing that shapes its object in order to be able to act on it. As Law (1991:3) suggests in the context of studies of science and technology, it is also an epistemology that tells us - sometimes descriptively, more often prescriptively - about how we should go about gathering knowledge. This, in effect, implies taking on board normative "... 'tool boxes' consisting of frameworks for classifying data, procedures for conducting oneself in the field, and methodological instruments for data analysis that are not linked to crucial research questions and theoretical concerns" (Long, 1992:

footnote page 15). The danger of some kind of methodological empiricism looms large, then, in policy-oriented studies of small-scale enterprise - or at least the notion that 'reality' is out there for understanding with the right *etic* categories.

In the same fashion, most theoretically informed research on small-scale economic activity takes the side of the knower - though for different reasons. Here, methodological canons flow from the epistemological need to accord primacy to the 'external' forces that are seen to constitute the context within which small-scale enterprise develops. Generally, this takes the form of conceptualizing 'capitalism', 'industrialization', 'globalization' and the like as the driving forces, whilst small-scale enterprises are portrayed as being the driven and only able to 'fine-tune' to local intricacies. The methodological implication of this determinist position is that scholars tend to take the outcome (social order) as their starting point. Clearly, within this view small-scale economic activities only matter in so far they are connected, related, and translated in terms of their importance for supporting or refuting the 'laws' of grand narratives. And, like the epistemology of the policy-oriented camp, it tells us what the rules of method should be: the question of how, on an empirical level, small-scale entrepreneurs shape, and are shaped by their socio-technical environment is abandoned or, at best, relegated to a secondary level of analysis. Thus curious research questions emerge, and answers are sought for non-existent problems: What is the relationship between traditional small-scale economic activities and the capitalist mode of production? What is the structural position of micro-enterprise in regimes of accumulation and regulation? What is the potential for economic expansion and employment of businesses operating in the so-called informal sector? Good luck to the crowd of economists, sociologists, anthropologists, historians and political scientists who feel propelled by these tormenting questions!

I am not interested in this form of inquiry. I am not interested in what *is*, but in what *comes about*. Neither am I interested in replacing the absolutist epistemologies of practitioners and theoreticians by *another* absolutist epistemology. Rather, what I try to develop in this thesis is just *one more* way of knowing. Or, as Latour (1988a) encourages, a way of knowing that is not only on the side of the knower, but also on the side of the known. A way of knowing that respects the processes by which entrepreneurs cast (or fail to cast) an organizing web over those activities they consider important for furthering their projects.

What then are the methodological consequences of this position? How did these, in turn, affect my research? Before answering these pressing questions, I will first give an account of the genealogy of the research proposal, that is, of why I chose to develop the theme of small-scale enterprise, what paths I had to travel to get the research funded, what

problems I faced when I arrived in the fieldwork area and, finally, how I came to adopt the position outlined above.

A genealogy of the research proposal

From the outset I must say that I was not born with any sort of natural interest in small-scale enterprise. It was an interest that slowly emerged during my first undergraduate years whilst reading the work by Long (1977) and Long and Roberts (1978 and 1984) on entrepreneurs in the Mantaro Valley in central Peru. What attracted me in this work was the commitment to integrate the local struggles to make a living by entrepreneurs within a framework that also paid attention to larger scale social, political, and economic systems. The answer, developed by Professor Long during the time I was an undergraduate student of his, pointed to the need to overcome conceptualizations that gave theoretical primacy to the capitalist 'laws of motion'. Long's argument is that such frameworks tend to impose an external, linear and deterministic view on the character of socio-economic change in general, and on the wheeling and dealing of entrepreneurs in particular. Instead, Long (1992:9) proposed an actor-oriented approach which "... requires a full analysis of the ways in which different social actors manage and interpret new elements in their life-worlds, [as well as] an understanding of the organizing, strategic and interpretive elements involved". To do so, the approach implied a shift from a conceptual toolbox that was dominated by political economy, to the understanding of social action, the negotiation and joint creation of knowledge, and the dynamics of power in interface situations.

Long's approach reshaped the terms on which much thinking about rural development was cast, and provided me with an adequate framework to interpret three subsequent research experiences. The first involved a study of the impact of international migration in a community in Western Mexico. The second consisted of a study on local agricultural knowledge and its relation to the (non)adoption of an alternative agricultural package in an *ejido* in Jalisco, Mexico (Verschoor 1989). And the last experience concerned the knowledge base of contrasting practices of plantain cultivation in the Atlantic Zone of Costa Rica (Verschoor 1994). By some vagaries of fortune, the common thread uniting all three episodes were dynamic entrepreneurs who were actively strategizing and organizing their activities in order to cope - not always successfully - with economic adversity.

So when the time was ripe to chose a topic for PhD research, I felt that the theme of small-scale enterprise would give continuity to concerns that ensued from previous fieldwork. These concerns pointed, first, to the need to question conventional analyses of commoditization processes.

This entailed highlighting the local values and cultural understandings that served small-scale entrepreneurs as a backcloth for experiencing commoditization. Second, they pointed to the need to expel all essentialist notions of orthodox economism in order to understand the social meanings of the different moments of production, exchange and consumption. Third, they suggested a focus on strategic action - and thus on those discursive practices that reflect the ways in which multiple identities coexist, interpenetrate, or enter into conflict with one another. Last, these concerns entailed granting full weight to social networks and spatial relations (cf. Verschoor 1992).

The next questions I needed to address related to the *what* and *where*. What type of small-scale economic activities would be suitable? Where could I best undertake the research? The choice for an area in which to start the study fell on the Autlán-El Grullo valley in Jalisco, Western Mexico. The main motive for this choice was a pragmatic one. I had already carried out fieldwork there in 1987, in the context of a project on irrigation organization, farmer strategies and State intervention (see Long 1986 for a general account of the research). I was thus already acquainted with a number of key informants. These, I reckoned, could in turn help me set up a research network. In addition, a number of PhD candidates that were working from an actor-oriented perspective had already finished their fieldwork in the region.² Their work would certainly be an immense asset, and a backdrop against which I could interpret my own data. Last not least, a fellow PhD candidate from Wageningen was about to start her own fieldwork in the area.³ Indeed, the chance of being able to discuss my findings on a regular basis with someone that shared the same theoretico-methodological framework was a pleasant prospect.

The next problem I faced was to further delimit the topic of research (the *what* question). After some brainstorming, I selected the theme of small-scale transport operators. The reason for this selection was, first, the centrality of commoditization processes in the research framework. Transporters were crucial in this respect because they formed the link between different moments of production and consumption; that is, they mediated commoditization. A second reason for selection were the recent deregulatory measures taken by the Mexican government towards the transport sector -making it possible, so to speak, to fit the rhetoric and practice of liberalization policy heralded by the Salinas Administration into the research.

My application for a grant, however, was not honoured. The main reason given by the selection committee was that the transport sector in Mexico was so pervaded by corruption, that any study of it would be severely hampered by the interests at stake. Another misgiving of the committee concerned the actor-oriented research framework, which was seen as 'relevant only for a small number of academics'. Although I wrote

a reply to the committee in which I countered the arguments, I felt other, more hidden reasons were also responsible for turning down the proposal. I can only guess what these may have been, but suffice it here to say that writing, presenting and pressing through a proposal is indeed a very political undertaking.

Still wanting to get the proposal funded, the next year I presented a new version of the proposal to the committee. This time, the focus was not on transport entrepreneurs but on trade and small-scale services. Otherwise the proposal remained roughly the same. To my surprise, a changed committee warmly accepted the theoretical framework and the proposal was put on the nomination list for funding. This I found interesting, because to be honest the proposal lacked the specific thematic focus of the prior proposal. But this reflection must have been heard beforehand by some members of the committee, because two conditions had to be met before receiving the grant. First, the committee argued that there was a lack of recent literature on small-scale enterprise in the reference list. After consultation with colleagues, and feeling I had covered most of the relevant literature, I wondered whether the reference list included in the proposal had been read at all - a thought which ultimately aroused the frustrating and bitter suspicion of once more being left on the sideline by political manoeuvring. The second condition put forward by the committee, however, made me more aware of the positivist underpinnings that run through the field of interpretations about small-scale economic activities. This condition centred around the lack of specificity concerning the sectors or subsectors of the economy in which I could safely position the enterprises I wished to study. Was I proposing to do a study of firms in the transport sector, as in the earlier proposal? Or was it the construction business that I was interested in? Or commerce and trade activities, mining or services? It was a stalemate situation. How could I *a priori* subsume small-scale economic activities into official, preconceived and 'closed' sectors or subsectors if my own data from a preliminary study showed that, in practice, most small-scale businesses crosscut these categories? How can one compartmentalize petty enterprise into 'objective' categories if, like Fabian (1983:54-5), one takes the position that objective categorization is but a "taxonomic way of ordering cultural differences with the help of categories of contrast and opposition that - like tables and diagrams - plot any and all cultural isolates in a logical grid"? Furthermore, how can one start with classifications which, as my preliminary fieldwork material showed, were actively challenged by small-scale entrepreneurs? Indeed (and this is one of the arguments of this thesis) the discourse *on* the economic did not correspond with the discourse *of* economic subjects - let alone their feelings, expectations or values.

The lesson I learned from all this was that one may get funds for the most radical anti-positivist or postmodernist proposals on a wide range of issues such as, for example, Andean collective memory or the role of local *caciques* in pre-revolutionary Mexico. But to obtain funding for a proposal that challenges the absolutist epistemological tenets of mainstream research on small firms is quite another matter. The point here is not that I want to legislate whether or not research - radical or otherwise - on collective memory or on heroic strongmen from the past should be funded. On the contrary, the more stories are told from different perspectives, the better! Rather, the point I wish to make is that it is very difficult to enter the discourse on small-scale enterprise if one espouses an analytical framework that diverges from the hegemonic one of economists.⁴ Research on small firms is certainly not (value) free!

While waiting for a final funding decision, I was able to start research with a joint grant from the department of Rural Development Sociology of the Agricultural University Wageningen and the Dutch Society of Agricultural Engineers (NILI). Thus from September 1991 to June 1992 I collected detailed case-study material on a wide variety of small businesses in Western Mexico. These included brick-makers, restaurant and shop owners, transporters, market stall vendors, carpenters and *tianguis* operators (more on this below; see also Chapters Four, Five and Six). While in the field, news arrived that my application for funding by WOTRO had again been turned down.

Still believing in the potential of the study, I set out to produce a new application. This time, I tried to comply with what I felt was the main reasons for animosity towards my proposals: the accusation that they were excessively actor-oriented, and that they paid insufficient attention to the constraints of structure. For this reason, I added a new dimension to the proposal: the context of the North American Free Trade Agreement. The agreement, which was expected to be signed before the coming U.S. elections of November 1992, was officially presented as a remedy to counter most of Mexico's maladies: the elimination of trade barriers would beef up exports, increase investment, boost employment, and raise the general standard of living. The argument I used for adding the treaty to the proposal was that small-scale enterprise was conspicuously and systematically left out of the NAFTA negotiations. This striking exclusion seemed puzzling since small firms were by far the largest employers in Mexico. Hence I proposed to analyze the impact of NAFTA on small enterprises in the Autlán-El Grullo valley. In particular, the revised proposal focused on the link between the viability of small-scale enterprise under conditions of international economic integration and its underlying, differential organizational practices and strategies.

For the third time, however, the proposal was dismissed by the funding committee. This time, the argument ran that the research was not

feasible because at the time (1992) NAFTA was not yet operational. And they certainly had a point! In response, I mobilized the counter-argument that NAFTA had *de facto* been in effect ever since Mexico joined the GATT in 1986. This was clear to anybody living in Mexico during that period: officially a variety of products did not yet qualify for importation, and Customs' officials showed a high degree of leniency in the implementation of duties and tariffs. Apparently, by taking such measures the Mexican government tried to demonstrate its good will towards free trade and thus positively to influence the US Senate in ratifying the treaty. Interestingly, it was petty entrepreneurs and *tianguistas* (ambulant sellers) who mushroomed in this situation by anticipating demand for specific foreign commodities in Mexico. But these arguments were to no avail: the type of research I was proposing was, for one reason or another, not very much appreciated.

Eventually this same proposal did receive funding from the Wageningen Agricultural University and, five months later (October 1992) I was again undertaking fieldwork in Mexico. Upon returning to the research area, though, it appeared that out of the fourteen cases of entrepreneurs I was studying, only three were still carrying out the same activities. Of the remaining eleven, three had migrated within Mexico, two had crossed the border to California to seek a better future there, three had changed their field of activity and the remaining three were seriously considering doing the same. Apart from these changes, during the five months of my absence a general feeling of economic malaise had invaded the region, and now people referred to the crisis as much as the Dutch do to the weather. Although I had witnessed the progression of this perception in my earlier stay in the area, I could never have anticipated the dimensions it took in only a matter of months. Amongst the main effects of the crisis, people referred to the rapid succession in which shops changed owners, falling real estate prices, diminished consumption, unusually high migration numbers (despite more difficult circumstances in the US) and an increasing crime rate. Not unexpectedly, I encountered competing interpretations about the nature and meaning of the crisis. Most people I asked, however, concurred that there was a crisis, and that its causes were complex and varied. On a general level, culpability was often attributed to the far-reaching economic, social and political programs of the de-regulationist Salinas administration –even amongst fervent PRI admirers. More particularly, as I was often told, the causes of the crisis had to be sought in low minimum wages; plummeting prices of sugar cane (the most important crop in the region) and the move to alternative cash crops due to massive imports of foreign, often subsidized, agricultural products; the privatization of credit, extension, and the production of agricultural inputs such as fertilizers; and the imminent collapse of tomato export production (and job opportunities).⁵

In a way, then, the neo-liberalism of the Salinas' Administration - euphemistically labelled 'social-liberalism' - was blamed for the local crisis. On closer inspection though, the crisis, like so many other phenomena, was unevenly distributed among the population. By transforming existing regulatory systems the Mexican government, it seemed, had actively promoted a series of processes whereby different social actors (individual or collective) were differently articulated with each other and with their resources. Consequently certain forms of behaviour benefitted particular social groups at the expense of others.

This situation greatly influenced my research. As I stated above, the theme of my study concerned the viability of small firms. As my cases suggested, I had already made a start in exploring enterprise forms that had been negatively affected by the crisis. But the crisis was Janus-faced, and I also wanted to obtain the other side of the story - the story of those entrepreneurs who seemed to have successfully (re)organized their projects. In other words, the rhetoric and practices of the situation of crisis necessitated a further sharpening of my research question. This now became: *how is it possible that some enterprises are able to thrive in a situation referred to as 'generalized crisis', while others do not?*

At this point, I selectively searched for firms that seemed viable. Observing and asking around, I was more or less quickly able to identify such enterprises. Some of them -like the supermarket of Tarcisio Jiménez or the vegetable wholesale business of José Zepeda - owed their success to particular circumstances: they had no competition to fear and sold products that were basic necessities. Others - such as the *Consumo* or the *Caja Popular* - owed their success to a mix of good management and cooperative effort. These firms however had one thing in common: they were all larger-scale businesses and co-operatives, and clearly not the type of 'small-scale' enterprise I had in mind. But other, perhaps more discreet, firms were highly successful as well. To give three examples from El Grullo: these included shoe shops, automobile repair shops, and small bars or *mariscos*. All three activities had in common that they were clustered, that is, that they literally operated next to each other. Thus, for example, most shoe shops were to be found along only one street, while most bars and repair shops were located along a relatively small stretch of the road that circumvented the town. Thus the answer to 'success' seemed to lie along two different variables: geographical conglomeration and sectoral specialization. The evidence suggested that clustering was a principle for success. This accorded with much of the literature on flexible specialization in Third World countries, the general argument being that small firms develop better in milieux where clustering of related enterprises takes place and where dense webs of interfirm linkages emerge. This is especially the case when a specific activity is carried out by a

relatively high number of enterprises operating within close proximity to each other.⁶

In the end, though, I decided not to study these clustered enterprises in El Grullo but instead concentrated on *mezcal*. The production of *mezcal*, a strong liquor of which *tequila* is the most known variety, showed characteristics that were similar to those I found in the shoeshops, bars and automotive repair shops. But study of *mezcal* looked more promising to me for two other reasons. First, at that time I was reading some of Barthes' (1973) work on popular culture and the ways in which meanings are produced and circulated. This dovetailed closely with my original intention to question the commoditization process, the different meanings attached to it, and the centrality of the concept in helping me understand small-scale economic activity. In this context, *mezcal* looked like a good product to look at closely. Second, I felt an urge to study small firms in a region that contrasted as much as possible with the lush, irrigated and dynamic valley of Autlán-El Grullo. Here too *mezcal* proved a good alternative, because most of it was made in the El Llano area -a desert-like, sparsely populated region of poor soils only half an hour from El Grullo. Although these reasons sound very rational, there was yet one more: the imprint that the fabulous novels *Pedro Páramo* (1955) and *El Llano en Llamas* (1953) by Juan Rulfo had left on my mind when I first read them in the Mexico City of my youth. These mystic novels, together with the spectacular natural setting of the Llano -surrounded as it is by smoking volcanoes and the dramatic gorges of the Sierra de Manantlán-made the choice an easy one. Indeed, logical rationality is not the only hallmark of the anthropological endeavour. Passion, romance, and adventure are also part and parcel of it.

From explanation to description

While studying *mezcal* enterprises, the issue of clustering became a central concept to understand viability -just as the absence of it seemed to explain why my other case studies were not so successful. As I already stated above, this was in accordance with a large part of the literature on flexible specialization (cf. Schmitz 1990, 1992; Späth 1992). However useful, this paradigm had a number of shortcomings. To summarize, its main weaknesses were, first, the ideal-typical portrayal of flexibly organized and specialized firms (cf. Murdoch 1995). Second, and more important from a methodological point of view, by establishing a boundary between the firm and its institutional environment, and by examining the success of small firms from 'without', the approach forebode the empirical question of what exactly is internal and what is external to the enterprise. This question had troubled my mind for quite a while, and was in fact nothing more than a disguise of the usual problem of the 'micro' versus

the 'macro', the 'context' versus the 'content', or 'structure' versus 'action'.

At this point - on a rainy summer afternoon, not wanting to get wet doing fieldwork - I read a paper by Callon and Law (1989) that has since become central to this thesis. The article refers to the methodological problem of distinguishing between context and content if one wishes to understand the relationship between innovation and entrepreneurship on the one hand, and economic markets and social structures on the other. Suggesting that a distinction between context and content is indeed relevant to the understanding of this relationship, in the article Callon and Law assert that the location and character of this divide cannot *a priori* be legislated by the analyst. Rather, they argue that this division is negotiated and renegotiated by the actors themselves (1989:57). Alternatively, they point to the importance of studying the way in which actors (in my case: entrepreneurs) ceaselessly try to create links between such pairs as producers and consumers, or the global and the local. In other words, Callon and Law propose that it is critical to outline the *networks* that are put into place by actors in order to be able to describe what counts as 'internal', and what as 'external' to actors' projects. The notion of network utilized by Callon and Law, however, differs fundamentally from standard usage in sociology. In a programmatic statement in which they clarify this difference, they write:

"[Thus] we are not primarily concerned with mapping interactions between individuals. Rather, in conformity with the methodological commitment to follow the actors no matter how they act, we are concerned to map the way in which they *define and distribute roles, and mobilize or invent others to play these roles*. Such roles may be social, political, technical, or bureaucratic in character; the objects that are mobilized to fill them are also heterogeneous and may take the form of people, organizations, machines, or scientific findings." (1988:285; emphasis mine).

What Callon and Law are arguing here is that these networks are empirically observable phenomena. If, as they suggest, one adopts the stance that the 'environment' of the firm is not itself a cause for its behaviour, but rather an *effect* of a whole complex of network relations, then it follows that this effect has to be explained from *within* this network by sticking to actors' own accounts.

Analytically, Callon and Law's position took me a while to digest. To integrate their position within an actor-oriented perspective was indeed a huge challenge, as both operate from within a different ontology: the

actor-oriented paradigm sees networks and practice as essentially social in nature, while in Callon and Law's framework these are seen to be made up of heterogeneous materials, that is, of both humans and nonhumans. Methodologically speaking, however, this difference seemed to be no obstacle. Indeed, the idea that one should obtain detailed ethnographic data on practices (including discourse) was not new to me. Indeed, the maxim of following actors to wherever they might lead in order to understand their actions is a cornerstone of the actor-oriented paradigm as well.

Notwithstanding the methodological similarities between actor-network theory and the actor-oriented approach, after reading Callon and Law's paper I became aware of the need to make some changes to the analytical set-up of my research. For example, if I chose to follow entrepreneurs' work of defining and distributing roles, and mobilizing or inventing others to play these roles, then clearly I had to step back from some of the sociological, anthropological and economic categories I cherished. Why? Because if I applied my own descriptive categories to entrepreneurs' actions, I would unavoidably be drawn into prejudging these - thereby emphasizing the 'black-boxing' of facts rather than re-opening boxes that seemed black. Thus, for example, I decided to step back from the notion of 'culture' as used in the actor-oriented framework, and instead favoured a definition of it as the enactment, the mobilization of all things (social and material) in specific spaces and at different times.⁷ Thus I did start from given, shared norms and values in order to project actors' practices onto these. Rather, I followed the actors and tried to understand how differences and commonalities were produced in relation to specific projects. In other words, I was interested in the construction of homogeneity from a situation of heterogeneity, and not in the construction of heterogeneity from a situation of existing cultural norms and values (homogeneity).

In more concrete terms, three methodological consequences emerged from the confrontation between an actor-oriented paradigm, and actor-network theory as proposed by Callon and Law. The first one was that it seemed futile to try to reduce entrepreneurs' practices to social, or economic, or political, or religious attributes alone. Following this rule of method, it turned out that entrepreneurs hardly heeded sociologists' or economists' *a priori* distinctions between, for example, market transactions and so-called external circumstances, supply and demand, production and consumption, etc. Neither did they discern between the material world on the one hand, and society, politics, economy or religion on the other. In fact, the reality of entrepreneurs was much more messy. In the words of Hughes (1983), they would stitch together heterogeneous elements into a seamless web. This coincided with a conclusion reached by Callon and Law (1988:284-5) in the context of a study on the concep-

tion, design and development of a technological artifact.⁸ Their suggestion - probably counter-intuitive for many sociologists - is that we

"must study not only the social but also the *technical* features of the engineer's work; in other words, we have to understand the *content* of engineering work because it is in this content that the technical and the social are simultaneously shaped. Any attempt to separate the social and the non-social not only breaks the original methodological principle of following the technologist. It is also, quite simply, impossible because the social runs throughout the technical and thus cannot be separated from it. We cannot, and should not wish to, avoid the technical".⁹

This finding, or principle, is what actor-network theorists call *symmetry*. Negatively, it suggests that one should not distinguish, *a priori*, between natural, social or technical phenomena - treating each one differently and changing the grid of analysis whenever shifting from one to the other. More positively, it suggests that the researcher has to position him or herself at the median point where he/she can follow the attribution of both human and nonhuman properties (cf. Callon 1986; Latour 1993; for a similar position see Strathern 1980).

The second methodological consequence was that I should *abstain from seeking to elicit the exogenous factors that enabled, influenced, or determined entrepreneurs' actions*. In other words, there is no need to privilege anything or anyone when looking for an explanation (or rather, an apt description - more on this below) for the feasibility of small firms. As Bijker and Law (1992) stress, the elements (including the entrepreneurs) bound together in networks are, at the same time, constituted and shaped in those networks. This means that one should avoid making assumptions about a backdrop of social, economic, or technical factors: the backdrop is something that is itself built in the course of building a network.

This comes close to what Latour (1993) calls the principle of *non-reduction*. Indeed, as Latour argues in this perspicuous essay, what lies at the core of epistemological absolutism is the assumption that a certain number of social and natural phenomena drive everything else. Reductionist practice, or so the argument goes, constructs a number of disparate dichotomies. Prominent 'theoretical' examples would include the structure/agency divide; the nature/culture abyss; the classical separation between subject and object. Less grandiose examples can also be found: the gulf between the rural and the urban; the segregation of that fashionable couple, the global and the local; the fragmented duo of producers and consumers; the exegetical contrast between capitalist and

non-capitalist modes of production; the enigmatic relationship between supply and demand, and so on. However elegant, all these attempts in finding a 'last instance' to which one can direct accusations does not withstand the ultimate test of practice. That is, at least, what I found when following the entrepreneurs of my case studies. Indeed, these actors were all busy trying to control the events they were faced with. They interpreted these events in order to account for what was happening. That is to say, they *implicated* a wide variety of social, technical, political, yes even supernatural entities. And - and this is the crux of non-reduction - whenever the events refused to be accountable, that is, to be controllable, then an ever widening net of heterogeneous entities was cast over the events in question in order to make sense of, or to explain, all the relevant features. As it turned out, most events resisted reductionist explanations. More, not less, associations were needed all the time. The actors thus constructed a universe in which events took place and produced meaning. And, in the same movement, they also exposed a universe in which they were shut up, contained, punctualized by a series of determinations that were external to themselves (cf. Akrich 1993:331). In other words, as Callon and Law (1989) suggest, actors produced content and context *simultaneously*.

Finally, I refrained from making assumptions about the character of feasible or unfeasible enterprises. I thus abandoned a *a priori* distinctions between categories of 'successful' and 'unsuccessful'. The particular reason was that these distinctions would rather hinder than facilitate an examination of the contingencies involved in the complex processes by which success was first defined and later achieved (or obstructed). Instead, I favoured detailed analysis of the tactics and strategies of the entrepreneurs I engaged with when they tried to mobilize heterogeneous elements - both human and nonhuman - in order to throw an organizing web around the world they deemed important for carrying out their projects. So what if I had not done so? If I had legislated between what was to count as successful, and what as unsuccessful? My answer to this is that I would obviously have concealed the way in which notions of success and failure are themselves constructed -and thus have taken a result for a starting point. In terms of Callon's (1986:200) principle of *generalized agnosticism*, I thus sought not to fix the identity of the implicated enterprises if this identity was still being negotiated. It was only at a later stage, when description had been pursued to the "bitter end" (Murdoch 1995:731), that an explanation of feasibility emerged.

To summarize, during fieldwork I tried to challenge the methods of scientific procedure that have virtually colonized the language of sociology and economy of development. I challenged this hegemonic discourse with the same commonsensical means used by the people I interacted

with while doing fieldwork. For the actors I followed did not use different vocabularies when referring to the things, natural and social, that surrounded them. In fact they would mix up things, leaving me with the impression that their cosmology was indeed a democratic one. A cosmology that could not be partitioned into the camps of docile objects and compelling forces. This thesis, then, is based upon the associations that these actors imagined, probed, and accomplished.

Doing fieldwork however is only half of the scientific game. Following Mexican entrepreneurs and the associations they make is fine, but not my ultimate goal. I am also an entrepreneur, but deal not in *tacos*, *tiendas*, or *mezcal*. Not in Holland, at least. I deal in accounts. Accounts of small-scale enterprise in far away places. But not just any accounts. I try to deal in - excuse the immodesty - *better* accounts of small firms. Therefore I use a different analytical language. A language of heterogeneous networks. A language that seeks to find *regularities* in these networks. A language that tries to identify the *practices* that engender relatively strong, durable (or feeble, fleeting) enterprises, and the heterogeneous networks these practices *de-scribe*. A language that avoids asymmetrical and reductionist accounts. Finally, a language that does not stick to explanatory narratives cast in terms of causality. Here, I turn the entrepreneurs' method onto myself. I associate as many heterogeneous elements as I need to build my stories. Stories of *work*. Stories of work in *process*. Until the tactics, the strategies - in short, the *practices* - of the entrepreneurs I followed are displayed. Until the display is saturated. And then I stop. I do not look for additional causes to explain entrepreneurs' behaviour. Let description do the explanation! True, there will always be *other* ways of displaying - let them be welcome. But I agree with Latour's (1991:129-30) forceful statement that

"[We] can certainly continue to follow actants, innovations, and translation operations through *other networks*, but we will never find ourselves forced to abandon the task of description to take up that of explanation.... Explanation, as the name indicates, is to deploy, to explicate. There is no need to go searching for mysterious global causes outside networks. *If something is missing it is because the description is not complete. Period.*" (Emphasis mine).

Favouring description over explanation has the definite advantage that it offers a conception of process that takes account of contingency. Consequently, the explanations that emerge from saturated descriptions are of a 'one-off' character. Here, a link could be laid with writers such as Foucault (1979) and Serres (1995) who prefer *nominalist* ('one-off') explanations over *essentialist* approaches that seek 'patterns' or 'trends' and then proceed to explain these as a function of some 'general laws'

and 'causes'. An essentialism that sees 'patterns' and 'causes' as coherent entities that reflect the characteristics of an actual (transcendental) object called 'the economy' (or 'society', or 'science', and so on). Indeed, following Woolgar (1988:20ff.), one could propose that 'one-off' explanations reject the quest for a definition of 'trends' or 'general laws'. From this point of view there is no such thing as, for example, 'patterns of development of small-scale enterprise' except that which is attributed to various practices and behaviours. Nominalism, in other words, thus suggests that features proposed as characteristic of these 'patterns' and 'causes' stem from the definitional practices of the participants (economists, sociologists, entrepreneurs) themselves.

On selecting cases for building up a theoretical argument

Writing is a joint enterprise. It combines entrepreneurs' daily practices with my daily practice of writing about them - which is in turn related to my ethical and moral commitments, the books and articles I read, the colleagues I interact with, and the technical possibilities (computers, libraries) at my disposal to link all these elements in a meaningful way. With entrepreneurs I have in common that I try, as best I can, to order, to organize the world that I deem relevant for pushing through my writing project. This means that I have a tremendous room for manoeuvre, for I can choose the way I write (and what I write) about the entrepreneurs I followed. Such a statement, of course, potentially calls for a number of questions, the most important one concerning the relationship between the text and 'reality' or 'what actually took place there and then'. To this I would reply that 'what actually took place there and then' is not an objective and transcendental phenomenon. Rather, what I present as 'reality' is intricately related to my theoretical and methodological choices and predispositions. What I mean by this is, first, that my description of events is always related to a question or set of questions I wish to answer. And second, by this I mean that description necessarily follows a set of epistemological presumptions - the appropriate ways, so to speak, of looking for, examining, and questioning the fieldwork material that will be used to answer the initial question(s). Here, of course, it could be argued that possibly I did not search for all the relevant material. In other words, I could fall prey to the accusation of being unduly selective, of picking and choosing as I pleased. From my perspective, however, I cannot but dismiss this reproach which I believe evidences the idea of the possibility to describe 'facts' independently from theory. Again, I emphasize that 'what actually happened' and what counts as 'relevant evidence' is, to an extent, a theoretical and methodological matter. Indeed, any experienced anthropologist will acknowledge that there exist *different*

ways of knowing. Coherent descriptions written in terms of diverging theoretical frameworks are always possible. Likewise, the theoretical frameworks one utilizes may change in time and still enable one to make sense out of the same data - that is, to describe in a meaningful way.

As I stated in Chapter One, the question that runs through this thesis is that of the feasibility of small-scale entrepreneurial projects. In particular, I am interested in developing a vocabulary of analysis that allows a description of attempts to build durable, feasible enterprises. Accordingly, I gathered and organized my fieldwork material with this explicit purpose in mind. Thus during the first fieldwork period I concentrated on enterprise forms that appeared to be unfeasible. This turned out to be an important asset later, when I decided to concentrate on the dynamics of more successful projects. The reason for this, I argue, is that the struggles in which 'unsuccessful' entrepreneurs were enmeshed tended to expose processes that were more easily camouflaged in 'successful' cases. In this way, I turned 'failure' into a methodological convenience (cf. Law and Callon 1992). Symmetrically, following more fortunate entrepreneurs later helped me to cast a different light on the dynamics of 'failure'. The thesis reproduces this iterative process by fitting together both feasible and unfeasible projects into a whole. Whether entrepreneurial projects turn out to be feasible or not is, after all, determined *within* networks. So the idea is this: your reading of the successful cases will make more sense once you have read your way through the unsuccessful ones. The latter will, so to speak, put the former into perspective. And vice versa: accounts of feasible enterprise forms will add relief to unfeasible ones.

Notes

1. I am conscious of the pitfalls entailed in separating the camps in terms of a practical/theoretical demarcation line. Indeed, any practice devoid of theoretical assumptions is simply unthinkable. By the same token, the *practice* of theorizing is, as the verb implies, as practical as any other activity.

2. See the Ph.D theses by van der Zaag (1992) on irrigation organization; Brunt (1992) on gender and land tenure; Guzmán (1995) on the political organization of sugar-cane production; Torres (1994) on the everyday life of tomato workers; González (1994) on export-oriented tomato production; Villarreal (1994) on issues of gender intervention. In addition, a number of MA-level studies had been carried out in the area, as well as a post-doctoral study on State intervention and peasant responses (Arce 1989; 1993).

3. Monique Nuijten's (forthcoming) Ph.D research on organizing practices at the *ejido* level.
4. There is a vast literature on the subject by anthropologists and sociologists. Most works, however, do not challenge in any way the epistemological assumptions discussed above and in Chapter Two.
5. This tomato disaster is attributed to a composite of factors: maladministration, virus diseases, water shortage and protectionist US measures. See González (1994) for an elaborate account of the rise and demise of tomato production in the Autlán-El Grullo valley.
6. For an elaboration and critique of flexible specialization, see Chapter Two.
7. Although the actor-oriented approach, like ethnomethodology, has the advantage of seeing 'culture' as embodied in social practice - that is, actors are not seen as 'cultural dopes' (Garfinkel 1967) following a more or less 'fixed' set of internalized normative rules - it nevertheless sees 'culture' as inherently *social* and, hence, does not pay proper attention to the role of the non-social in the constitution of the so-called social. In other words, I equated 'culture' with heterogeneous (social and material) *practices*.
8. The TSR2, a British light bomber and reconnaissance machine that was planned in the late 1950's and cancelled in 1965.
9. Reviewing Lynch's (1985) *Art and Artifact in Laboratory Science*, Latour goes one step further: "To be sure, scientific practice is social through and through, but this does not mean for Lynch that sociologists are well equipped to find such factors. Quite the contrary: they are unable to discover social factors as long as they do not realize that these factors are nothing but the *technical work itself*." (1986:543).

CHAPTER 4

HOLDING TOGETHER UNUSUAL BEDFELLOWS

Tacos, Ice cream, and Public Transport

In Chapter Two, I pointed to a central shortcoming of most studies on small-scale enterprise: their unqualified assumption that the content of economic activities is determined, limited or otherwise influenced by their context. Of course, some of the best studies (for example in the flexible specialisation tradition) do contest this position and maintain - following authors such as Giddens - that context shapes, and is shaped by, content. There is certainly an element of truth in such statements, but entrepreneurs' *practices* of seeking to achieve some degree of autonomy from their operational environment are not explicitly addressed. If - and this is my argument - entrepreneurs' projects influence, and are influenced by, their context, then one needs to describe and explain the trajectory of these projects - not as naturally unfolding processes, but as an outcome of struggles, negotiations and contingencies. To do so, I argued, necessitates a vocabulary that enables one to come to grips with the co-evolution of the context and content of specific entrepreneurial projects.

In this Chapter, I deploy such a vocabulary by interpreting the trajectory of two projects in the light of concepts such as *global* and *local networks*¹, *obligatory points of passage*, *convergence*, *translation*, *translation regimes* and *momentum*.² The basic question guiding the organisation of this Chapter is: Can Carlos' (the protagonist) entrepreneurial projects become effective obligatory points of passage between the global and the local networks that he helps construct through his projects? To answer this question, I will first spell out the heterogeneous composition of these 'global' and 'local' networks. However, since the composition of these networks is not something that can be determined *a priori*, I will "follow the actors" and circulate smoothly between the entities making up the networks. The rationale behind this methodological devise is that one can, so to speak, peep over Carlos' shoulders to see how a boundary is built between the 'global' and the 'local' networks of his projects, and assess whether or not the projects succeed in becoming obligatory passage points between the two.

In what follows, I describe in detail how this process of becoming an obligatory point of passage is no more than the product of the strategies of translation, that is, of *problematization*, *interesement*, *enrolment* and *mobilization*.³ More concretely, these strategies can be seen as Carlos' answer to four pressing questions: Whom should he convince to carry through his projects? How strong is the resistance of those he chooses to convince? What new resources should he enrol to break this resistance? What transformations should his projects eventually undergo? In the narrative, I will address these questions sequentially. Finally, in the

conclusion I return to the issue of the viability of Carlos' projects (i.e. their capacity to act as obligatory points of passage) and assess how this relates to the morphology of 'global' and 'local' networks.

An initial encounter with two projects

I visit Carlos for a second time late at night in October, 1991. Carlos operates a *taco* stall on one of the sidewalks bordering El Grullo's main plaza. I greet him, and he introduces me to some five or six customers that stand next to his stall, eating:

"Hey, look, this is Gerardo - that's your name, right? He's come all the way from Holland just to eat these *tacos*. How hungry are you tonight, Gerardo?"

I order five head-meat *tacos*, as I am not in for the other items from his assortment: brain or lip *tacos*, or meat *tortas*. While I stand waiting to be served, Carlos asks me loudly, for all to hear:

"So tell me, what are you doing here? Are you also studying the irrigation [scheme]? There were some Dutch here before you. Are you part of their team?"

I explain that I'm not into water, but into small-scale enterprise and the informal market. While cutting some head meat on a wooden table next to his cart, Carlos replies:

"So you are spying on me, eh? [laughter]. Don't worry, here we'll teach you whatever you want to know. Maybe we can open up a *taco* business in Holland, right, Julián?"

Julián, a plump lad in his early twenties, is enjoying a brain *taco* drenched in green tomato sauce. He supports the idea but prefers to suspend judgement until more information is provided about the attractiveness of Dutch women. Carlos settles the doubt: addressing his wife Anita, who is cutting bread for the *tortas*, he proclaims:

"Only beautiful women over there. Whether they speak Spanish I don't know. But if they do you may as well say goodbye to your husband... So tell me Gerardo, do they speak Spanish like you, or just bad words and *albuces* [double-meaning words] like Julián over here?"

Julián laughs and orders five more tacos, which he promises to pay for tomorrow. Carlos jokingly remarks:

"Gerardo, you shouldn't make friends with these good-for-nothings. No money, no tacos. You got to feel hunger once in a while..."

Carlos passes the tacos to Julián. Without thanking him, Julián makes an observation about Carlos' three year-old son who is holding a *taco*:

"Tell me Carlos: do you also give this shit to your own little son? Do you want to get rid of him, or what?"

Carlos laughs heartily and replies:

"No, *cabrón*. These I only give to you and to the dog. For my son I go and buy tacos around the corner..."

The matter is dropped when Jaime, a punk figure in his late teens, comes by to ask Carlos whether he should help attend the *taco* stall the coming weekend. Carlos:

"I don't know yet. Come on Saturday morning and then I'll know if the minibus is already out of the garage. They said the spares were there but I don't know if Pascual can hasten them."

I don't understand the meaning of this, but when I finish my *tacos* the picture becomes clearer. Transparency is provided by a customer who has so far concentrated on his dinner. He asks:

"Are you still letting Pascual drive for you? That lazy good-for-nothing sloth is going to be your calvary... Between him and your *compadre* who set you up with the minibus business you'll end up selling *tacos* all your life..."

Carlos concurs with his customer's diagnosis. Turning to me he says:

"I have a minibus⁴ in Guadalajara. But the other day the driver had to go full on the brakes and a calliper broke. *Bendito sea Dios y santo su nombre* [thank God] nobody was hurt, but now the garage has taken over two days to repair it and meanwhile I have no income."

Julián, throwing some salt onto the open wound:

"Well I wouldn't be surprised if Pascual just tells you the minibus is still in the garage. I think he's already out there driving and snatching the *entradas* from you. If I were you I wouldn't trust him for a second..."

Seemingly preoccupied, Carlos nods. Addressing his wife Anita, he decides:

"I think he's right, *vieja* [girl]. Maybe I should go to Guadalajara tomorrow and check on him. Jaime, can you be here tomorrow? And the day after?"

The show at Carlos' taco stall continues until well after midnight. Anita and Carlos' two children have already gone to bed, and I help him carry all the culinary attributes⁵ into the house. When I finally leave, three dogs scrutinise the setting for possible meat remains, but apart from some discarded chile sauce (which they lick without seeming objection) the sidewalk is clean. Next day, El Grullo's health inspector will have nothing to complain about.

Carlos: genesis of two projects

In what follows, I unfold Carlos' strategies to organise the two businesses referred to in the vignette. To do so, however, calls for a short description of how Carlos came to be engaged in tacos and public transport in the first place.

Carlos was born in Autlán as an illegitimate son of Arnulfo P., offspring of one of the most influential families in the region.⁶ His occupational career starts at the age sixteen, when he picked up a full-time job with a maternal uncle selling clothes in the most remote corners of Jalisco and Nayarit. This experience forges later engagements, for Carlos likes the travelling (and the women and drink that go along with it). At twenty-two he gets a job as fare collector on a passenger bus operated by another maternal uncle. In four years' time, and working for different patrons, Carlos gets acquainted with a great many people in the bus circuit, and especially from Guadalajara's *Alianza de Camioneros*. These contacts prove instrumental later on, when setting up his minibus business.

Due to health reasons Carlos quits the travelling and is forced to lead a more sedentary life in El Grullo. There he meets Anita, daughter of a well-to-do family⁷, whom he marries in 1985. That same year Carlos sets up a candy bar at El Grullo's large movie theatre. This is made possible through some connections of Anita's father who knows the owner of the cinema and mediates a concession for Carlos to sell candies, popcorn and softdrinks inside the building. The candy bar proves to be a

little gold mine, and for a while enables Carlos and Anita to rent a large, fancy house in the centre of town and buy a brand-new pick-up truck. Through the venture, Carlos is able to obtain two stalls in El Grullo's newly-build central market, and employs two labourers to sell candies as well. Most of the money made, however, finds its way to parties and feasting, and in no time Carlos becomes one of the most popular persons in El Grullo. After a two-year bonanza business declines, taking with it the house, the market stalls⁸, and his friends.

"The Reforma theatre, that's where I made my *centavitos* [money]. In those years there were three films a day, and the place was packed full of *chúntaros* [Amerindians]. But then the *tomateros* moved and now there's only one film on Sunday's. There's even the anecdote that the Reforma [the movie theatre with a seating capacity of 1,800] is the largest theatre in the world, because it never gets filled."

By 1989 Carlos and Anita have sold all their belongings and are rock-bottom. With nowhere to go with their two young sons Carlín (3) and Chava (1), they move into Anita's parental home facing El Grullo's central plaza - an idea suggested by Anita's mother⁹ - where they are allowed to use a large space that serves as a storage room to Alfredo's (Anita's brother) hardware shop. There, between plastic hoses and oil filters, Carlos and Anita forge a new plan: they will start a taco stall specialising in *tacos de cabeza* (head meat tacos) - a delicatessen not on offer in El Grullo at that time which Carlos knows how to prepare. The site they have in mind is the sidewalk in front of Anita's parental home. This is a very strategic location, especially on weekends when half the town promenades on the main plaza. Also - and this is important during the week - the location is only 30 meters away from the place where 6 or 7 ambulant taco sellers settle each night. This means Carlos and Anita plan to plug their business into an already existing *collectif* of customers, *tacos* and ambulant sellers.

In theory, starting the stall seems a straightforward activity, and not much starting capital is needed: a cart, a table, plastic dishes, saucers, gas cylinders. These are all paid for by Anita's father. In practice however, running the stall turns out to be a complicated affair. For example, a range of permits need to be obtained at the municipality¹⁰, local butchers have to be convinced to deliver prime-quality meat only, and gas cylinders (of which there is a scarcity) need to be delivered on time. In addition, the running of the household has to be adapted, for Anita needs to cash customers' money (for sanitary reasons Carlos never touches it while preparing *tacos*). Also, calculations need to be made about the quantity of meat to prepare on a given day, and customers' satisfaction has to be ensured by offering a better service than the nearby competition. The

complexity of these organisational requirements increases when - ten months after starting activities - the business is expanded to include *tortas*, *tacos de labio* (lip tacos) and *tacos de seso* (brain tacos). This calls for a greater involvement on Anita's part as she is put in charge of the *tortas*. Moreover, since Anita cannot now touch the money, extra-familial labourers become necessary (one on week days, two on Sundays).

The stall soon proves to be a success. Thus, after subtracting expenses, on an average weekly day Carlos is making between USD 35-40, while on Sundays profits overshoot the USD 75 mark. Financially, then, the business is lucrative. However, 'success' also shows its dark side, and socially the venture has its disadvantages in that monetary success is openly attributed to Carlos' father-in-law. As Carlos once put it:

"Even my in-laws would pester me. Take for example my brother-in-law Valente¹¹. He would come to me and say in front of all my customers: "*Quiobo pariente!* [Hello relative] You really have a nice father-in-law. He's like the divine Providence to you: he feeds you, clothes you, shelters you and on top of that he even provides you with a woman..." That really hurt! I tell you, for a man that's a difficult thing to swallow!"

These and similar remarks are a ground for much discontentment and push Carlos into thinking in terms of other, new ventures where he can be independent from his in-laws. Scanning for possible alternatives, Carlos is soon tipped by his *compadre* Lucho¹² about the enormous possibilities that lay open at that time in Guadalajara's public transport system. As it turns out, in the late 1980s SISTECOZOME¹³ is redesigning the city's transport system by replacing large, old and polluting buses with a subway network and introducing newer, cleaner and smaller minibuses with a maximum seating capacity of 24. In 1990, at the time Lucho tips Carlos, SISTECOZOME is issuing a large batch of permits to would-be minibus operators.¹⁴ It does not take long before Carlos realises the potential of the minibus alternative - especially since Lucho already owns one such minibus and shows Carlos the net gains to be made.

Carlos decides to enter the business and sets out to look for possibilities to purchase a minibus - which run at about USD 21,000 each. Again, he relies on the help of his in-laws who are in the process of asking for a large loan of USD 135,000 at the local branch of BANAMEX¹⁵. With the loan, Carlos' father-in-law plans to expand his small ice factory, while his brother-in-law Alfredo intends to substantially increase the stock of his hardware shop. The intended loan allows for some room for manoeuvre, and it is decided that part of it will be detoured to allow Carlos to make a down payment on the minibus. After some official paperwork, the bank's regional headquarters in Guadalajara approve the credit at a monthly interest rate of five percent. Problems

however surface when the local branch is about to disburse the sum. Carlos:

"As it turned out, two or three people in charge of implementation at the local branch demanded a share of roughly five percent of the total amount to authorise the transaction. This was against my father-in-law's principles, and so he called the deal off."¹⁶

Carlos now has to look for a loan elsewhere. He finds a willing party in his *compadre* Lucho, who advances USD 1,300 at a monthly interest rate of four percent. Since Carlos has outstanding debts all over, this money is given to Anita who in turn deposits the amount at her account at the *Caja Popular*. With it, she obtains a loan of nearly USD 4,000 - enough to make the down payment for the minibus, pay the obligatory taxes, and obtain an operation permit at SISTECOZOME. The latter is itself quite problematic, and to obtain the permit Carlos is compelled to sign a document that makes him a member of the drivers' Union.¹⁷

The next step involves choosing an appropriate minibus and finding a credit institution willing to finance the purchase. As for the choice of the vehicle, a range of possibilities exist, but in fact the choice is narrowed down to a 24-seater "Havre" since it is the only make that can be financed on the credit terms available at the time.¹⁸ The next stage involves obtaining a good route to operate the minibus. This takes some time, but after negotiations with SISTECOZOME officials and taking a number of compulsory courses Carlos is granted a permit to join 20 more minibuses on the profitable route number 47, from the outskirts of Guadalajara right into downtown.¹⁹ Everything now seems settled, and the project is ready to begin. However, one final but important hurdle still needs to be taken: Carlos is colour-blind and cannot differentiate between red and green - a great handicap in a city full of traffic lights. A trustworthy driver needs to be hired. This he finds in Rigoberto, a cousin living in Guadalajara. Finally, halfway through 1990, operations start.

Like the taco stall, the minibus proves a financial success. On average - after subtracting gasoline costs - Carlos is earning USD 85-100 a day with it.²⁰ Setting up the minibus business, however, turns out to be quite a different matter than setting up an ambulant taco stall. As a street vendor, Carlos has a "face": he is one among few, and operates in a relatively small provincial town. In contrast, as a minibus operator he is one among many, operating more-or-less anonymously in a public transport system of a large metropolis. Likewise, the central problems of both businesses differ sharply. With *tacos*, the problematic hinges on Carlos' capacity to motivate clients to appear in sufficient numbers and eat suitable quantities. The situation is the reverse in the case of the minibus, where

customers patiently wait in line at bus stops for his vehicle to appear. Here the main dilemma involves trusting the driver and persuading him to deliver all profits. The two *collectifs* (tacos and public transport) are thus qualitatively different - both in terms of their length and scale: whereas the street food *collectif* is basically composed of thirty thousand potential customers, local municipal permits or labour from El Grullo, the minibus *collectif* stretches out to encompass millions of customers and such dissimilar actors as *arrendadoras* in Mexico City or the minibus industry in several countries. To operate within these two distinct *collectifs* it is imperative that Carlos unfolds different strategies to cope with the specificities of the different fronts. Above, I highlighted the first of these strategies: who should he convince to start his new ventures? We now turn to the next question: how strong is the resistance (potentially and in practice) offered by the actors Carlos needs to enrol for the organisation of his businesses?

Gauging resistance: regional crisis, fiestas and disloyal drivers

It is soon evident that resistance to Carlos' ventures abounds. Below, I will illustrate the most important (though not all) of these to put into perspective the strategies employed - that is, the elements mobilised- by Carlos to counter insurgency to his plans.

As I spelled out in the foregoing section, the central obstacle to Carlos' taco business are clients. To be more precise: clients who do not appear in expected numbers. Carlos holds two elements responsible for this situation. The first one concerns the large number of *fiestas* held in the region from September through February. With the exception of the local carnival (which is held downtown El Grullo and thus brings many customers to his stall), the wide geographical distribution of these *fiestas* has the effect that clients with money to spend appear everywhere but at Carlos' stall. And, once the *fiesta* season is over, money is usually spent on other items such as agricultural inputs for the growing season - thus bringing about the *cuesta* (uphill battle from March through August) feared by most local entrepreneurs engaged in services and trade. Next to *fiestas*, the national crisis in the sugar industry is also blamed: under 'normal' conditions, the *cuesta* can be delayed until the beginning of the rainy season in June, which indicates the end of the sugarcane harvest when potential clients such as farmers and sugarcane labourers receive their payments from the sugar mill. From 1991 until 1993, however, the financial circumstances of the local sugar mill are such that it incurs in huge debts with sugarcane growers, thus substantially slowing down the circulation of cash.

Seasonality and the crisis in the sugar industry then are accused for the sin of obstructing clients.²¹ But so are the different days in the week.

Apart from Sunday in which a high turnover is often reached, Mondays and Tuesdays - along with Thursdays in which all shops close in the afternoon - are sloppy days sales-wise. On Fridays and Saturdays, the number of clients that can be expected may vary substantially, and force Carlos to make accurate estimates of the meat to be bought: too much entails direct losses, while too little means dissatisfied customers. The flexibility required by this situation is in turn resisted by many of El Grullo's butchers - to the point that it was a difficulty in itself for Carlos to secure meat on demand (let alone of the quality he wished). After all, by any local standards Carlos is a wholesale consumer of head meat, and no single butcher can afford asking for thirty kilograms of it at the abattoir on a given week, increase the order to forty the next week, and cut to fifteen kilograms the week thereafter without having Carlos' explicit word that he will actually buy.

Procuring a stable and flexible supply of meat is thus a central concern. And so is that of securing access to the softdrinks that often accompany clients' tacos.

For this Carlos heavily relied on David - owner of a store next door - where he could drop in anytime at night and take with him all refrigerated softdrinks needed at that moment. The balance was always made up the next morning and, since no track was kept of the amount of bottles passing hands, trust was an essential component. This agreement, however, was a frail one, and a comment out of place could easily frustrate the organisation of Carlos' business, calling for complex negotiations to reinstall the crucial relationship. Such a situation ensued when, in the presence of Conchita Corona (PAN candidate for the municipal elections of 1992), David, and David's wife, Carlos made some ugly comments about David's virility. The foursome were talking about the issue of being allowed to carry guns, and of having them or not. David - on good terms with the candidate - jokingly remarked that the only gun he owned was the one he used to urinate with. All present (except David) heartily laughed, and Carlos added to the joke that it seemed unbelievable to him that David could still urinate with this 'gun' because he thought it had already dried out... David (58) did not reply immediately, but later angrily reproached Carlos in public that he should never again use these words in front of his wife. To add weight to his words, as a reprimand he stopped selling softdrinks to Carlos for close to three weeks, when matters were discussed and a cooled-down relationship was taken up once more. In the meantime, Carlos had to go to great lengths to satisfy his need for softdrinks.

But not only do *fiestas*, clients, pieces of meat of different quality and softdrink suppliers cross Carlos' plans. Illness is a constant adversity, and a simple flu may cut profits by more than half. This happens with the regularity of a clock - especially during the winter months - and is prob-

ably due to Carlos' front always being exposed to the heat and steam emanating from the stall, while his back is always exposed to the cool drafts of El Grullo's nights. When illness hits, only *tortas* are sold, since making *tacos* entails constant supervision or else the meat dries up and *tortillas* crumble if exposed to steam longer than strictly necessary. Due to gendered preferences (men - who abound on the streets at night-time - favour *tacos* while women - who are scarce on the street after 10pm - prefer *tortas*) turnover may thus sharply decrease in case of illness. Likewise, problems of labour control often surface, and rebel against Carlos' project: his aides may for instance unexpectedly leave him, chased by pregnant girlfriends or tempted by job offers in the US. Or they may pocket small change, invite their friends for free meals, or forget to bring along *tortillas* on their way to the stall.

Partaking in this conspiracy are hard-needed gas cylinders. These do not always appear on time because gas companies prefer to sell their precious liquid to high-bidding North American customers, literally leaving Mexicans - *taco* lovers or not - in the cold. Add to this a municipal president wanting a piece of the action;²² harassing customers fraternising with unwilling police;²³ a competitor opening a pizza parlour next door;²⁴ a newcomer selling American-style *tacos* around the corner;²⁵ constant trips to Guadalajara to check on his minibus business, and it becomes obvious that quite a large number of interrelated factors work against Carlos' business. Indeed, Carlos is surrounded by resistance; nothing and no-one can be fully trusted, and even the slightest miscalculation may endanger a day's sale or indeed the whole *taco* enterprise.

Carlos' adversaries are of course not only confined to his *taco* business. There are tricks to every trade, and in the minibus lengthy struggles have to be fought on different fronts. As in the case of *tacos*, resistance to the minibus project proliferate. The largest adversary is SISTECOZOME, the public transport system, which hinders Carlos by the simple fact that it demands a piece of the cake. So, for example, each month Carlos needs to pay "concession" fees of over USD 40 for which he gets no services whatsoever in return.²⁶ Or additional expenses surface, such as mandatory training courses for drivers that cost over USD 330. Carlos:

"The lessons took no more than two afternoons, and the only thing drivers were told was to behave courteously towards passengers, to dress well, and to drive carefully. And this in the very same week that [President] Salinas announced that so-and-so many millions of State funds had gone to SISTECOZOME in order to train drivers: *¡pura madre!* [bullshit]."

On other occasions, bookkeeping "failures" allow SISTECOZOME officials to pocket permit contributions. In such a case it may happen that minibus

operators, unaware of the fact that their contributions have been detoured, continue operations until, inevitably, fines arrive through the mail. In the event that operators cannot produce evidence of their timely renewal - a difficult thing in a culture where receipts often land in the wastebasket - then their operating permits are void. Carlos was involved in such a situation once, and made to pay for a new permit and fined USD 50. Meanwhile, the minibus is seized for 11 days. To make things worse his case is officially appraised, and a number of traffic violations surface which together add up to more than USD 350. On balance, the circumstance costs Carlos two operating permits (the old one for which he had already paid, plus a new one), USD 400 in fines *and* no minibus income for 11 days.

But SISTECOZOME offers even more resistance to Carlos' business. In March 1993, the director of the public transport system (Lorenzo Quiñones) announces that all minibus units have to make place for newer, larger (36 seats) midibuses. The argument for this compulsory change is that minibuses "suddenly" appear to have been built upon freight chassis, hence their suspension is not adequate for the transport of citizens. In order to avoid direct clashes with operators, the system's director proposes a phased (2 years) introduction of the new, compulsory models so that operators may be able to find a suitable solution to their new problem.

Next to this form of resistance there exist other, less apparent ways in which SISTECOZOME obstructs Carlos' ambitions. For example, increased competition through the issuance of additional permits account for a fall in Carlos' income. Thus, while in September 1991 Carlos served his route together with 20 fellow operators, by January 1992 the number had increased to 24, and halfway through the next year 37 minibuses had already been incorporated into the same route. This allowed for departure hold-ups and, accordingly, a fall in income. Consequently, monthly payment to the *arrendadora* is endangered, and on more than one occasion Carlos is summoned to pay surcharges of 2.5% to his outstanding debt. Add to this the dynamics of a system based on penalties²⁷ and a virtual collapse of the *Caja Popular* of El Grullo (which traditionally allows Carlos to fill one gap with another)²⁸ and one can safely assume that SISTECOZOME is no little enemy.

Although SISTECOZOME (through its director, its inspectors, the *arrendadora*) is a constant headache to Carlos, other resistances are apparent. For example, the driver (Carlos' cousin) is accused of not being loyal and keeping substantial amounts of fare money to himself. In this the driver is aided by passengers' obdurate habit of never asking for their tickets - making estimations of passengers transported next to impossible. As a way out a new driver is hired - Pascual, a cousin of his ousted predecessor - but after three weeks of noticeably higher profits passenger numbers again seem to decline, giving Carlos ground for new suspicions.

Wanting to get the full story on the disappearing act, Carlos resorts to two ways of assessing the situation. One involves a comparison of his driver's revenues with that of fellow drivers operating the same route. His driver's cunning beats him, though, because none of his colleagues seems to have a loose tongue. The other alternative open to Carlos entails checking with inspectors about the number of departures on a given day or period. This however soon also proves to be dead-end: inspectors seem to be very fond of 'deflating' the number of registered trips per driver if the latter are willing to cooperate in covering the 'high cost of living' of the former.²⁹ Not able to control the situation Carlos has to adopt a 'see-for-yourself' strategy. After some driving on his own (and some spying on Pascual) Carlos finally obtains the full story: the driver seems to have his own interpretation of the amount of registered trips Carlos would find satisfactory - then uses the minibus for his own benefit. This he is able to do by feigning a mechanical failure. The failure is reported to the SISTECOZOME inspector, who in turn (through the mediation of some pesos) issues an official permit to suspend services and visit a repair shop. After this, the driving goes on... but profits do not find their way to Carlos - a disconnected odometer doing the rest of the job.³⁰ Carlos:

"He [the driver] would be making like five hundred pesos [USD 160] and giving half of it to the one giving the *salidas* [departures] so that the minibus would not appear on the list. Maybe he [the driver] was tempted because I was paying him a salary and not a commission for each passenger that got on the minibus. But how can I calculate how many passengers he drove around if he doesn't issue any tickets?"

The bond - based on trust - between Carlos and his new driver is not sufficiently strong, and leaves ample room for betrayal. Pascual is replaced - this time with good results, as profit increases soon confirm. But after having temporarily solved this driver problem, a new one surfaces. This time it is not only the driver, but also drinks, a traffic light, and an electricity pole which oppose Carlos' plans. According to passengers' testimony, Carlos' driver appears to be drunk³¹, drives through a red light, and is nearly hit by an oncoming car. Reacting swiftly, the driver manages to dodge the obstacle, but cannot avoid bringing the minibus to a standstill against an electricity pole. Nobody is injured, but the driver flees and the minibus is seized. The outcome: two appearances at court for damaging federal property (the electricity pole), fees worth USD 75 for a lawyer, a settlement of USD 450 with the municipality of Guadalajara for repairs to the pole, a USD 300 fine at SISTECOZOME for letting a drunk driver into his minibus, a bill worth USD 1,250 for repairs to the damaged front end of the minibus, and the headache of having to hire another driver.

Problem-solving, Mexican style

All down the line, Carlos' plans are defied by heterogeneous obstacles. Meat, *fiestas*, passengers, harvest seasons, SISTECOZOME, softdrinks, drivers, traffic lights and so on: they all seem to be obdurate parties. If Carlos wishes to succeed in his enterprises, then either he enrolls them, or keeps them at bay. Can he achieve this in a desired way? Or rather, do resistances force Carlos to transform his goals? The answer to these questions entail a number of trials of strength on different fronts: can resistances be overcome? If so, what new resources should be enrolled? Let us examine these trials of strength.

As we saw above, clients are the central obstacle to Carlos' *taco* stall. Responsibility for their lack of willingness to buy is attributed to *fiestas*, the sugar industry and the effect of different days of the week on sales. The crucial question thus becomes: Can these obstacles be removed? Clearly Carlos cannot change the order of the days of the week, or solve the crisis in the sugar industry - as much as would like to do both. Neither can he contest the presence of *fiestas* or the absence of customers at his stall during these. Carlos' total dependency on local consumers who live their lives in patterned sequences of days, attend *fiestas* and are affected by the crisis is a burden he has to live with. But Carlos can adapt to the situation. He can rework its parameters for action. Sure enough, a Monday is a Monday, and a Sunday a Sunday. Through time, Carlos learns how to calculate the amount of *tacos* and *tortas* eaten on a given day in a given time of year. His skills, his knowledge as *taco* seller thus increase. Only seldom do dissatisfied customers leave with an empty stomach or are meat and *tortillas* left over. He likewise devises new strategies to counter specific *fiestas* such as *cuaresma* (Lent) when people do not usually take to meat. So, for example, at one point he tries to sell fish *tacos* during this season.³²

Adapting, yet unable to break clients' resistance Carlos concentrates on other fronts. For example, resistance offered by local butchers to Carlos' idiosyncratic demand for head meat is soon broken. The first step to do so is to ask his affine Valente, the restaurant owner, to buy extra meat for him in Guadalajara (Valente has somebody buy meat for him every second week or so, depending on business). This construction has the disadvantage, though, that Carlos depends on the number of customers visiting Valente and thus on the timespan between visits to Guadalajara by Valente's driver. To overcome this inconvenience Carlos purchases a 300 litre freezer, and decides to purchase imported Canadian meat himself whenever he travels to Guadalajara to attend to his minibus business.³³

Yet other, seemingly trivial but nevertheless important, problems are solved by heterogeneous means. So, for instance, the issue of protection against harassing customers and potential robbers is settled by always

having a .25 calibre pistol at hand. Or the 'betrayal' of his softdrink supplier is solved through the mediation of a softdrink distributor (Coca-Cola, Fanta and Sprite) with whom a contract is signed. Some of the 'social' resistances are thus countered through the enrolment of 'technical' means: molesters are kept at bay through a gun; softdrinks are still sold, but now Carlos acquires them through a written document, and not anymore through informal and potentially volatile agreements. Symmetrically, 'technical' or 'medical' resistances are retaliated through the enrolment of 'social' means. Thus, in the case of gas shortage (a technical problem) a pool of neighbours and family is created to travel to Autlán weekly and stand in queue at the distribution agency from 5:30am onwards (a social solution). Or potential flus and other illnesses knocking out Carlos or Anita are answered by training a small number of youngsters who can be brought in at short notice to make *tacos* (though trust in them always remains a brittle thing).

As noted above, Carlos also encounters political resistance. This he tries to break through different strategies, for example by helping attach the future municipal president's campaign posters on walls scattered all through El Grullo.³⁴ Because of this, people identify Carlos as a PRI-diehard - a label he does not repudiate. Carlos:

"OK the Party is corrupt. But I like to win, so I'm a *priista* [supporter of PRI]. It's wiser to be with them than against them, believe me! So it's either me who adapts, or I go under to competitors who are less scrupulous!"

Other ways to break resistance by the municipality involve contributions to the local PRI, or offering free *tacos* and *tortas* to members of the police or the different members of the County Council. And sometimes it involves backing the municipal president who in turn needs to support a PRI-candidate campaigning for Governor of Jalisco by providing large numbers of supporters that will carry the official green-white-red banners (PRI's colours) at different political events. In return for these 'services' Carlos can procure all sorts of benefits such as lower sidewalk fees to establish his *taco* stall, a permit to close the street whenever he has a party, and so on.³⁵ Sometimes however Carlos' costs in providing this type of 'services' skyrocket, as is the case in the three-yearly end of campaign by the PRI's candidate for the municipal presidency. On these occasions, the PRI celebrates a huge *fiesta* complete with all sorts of popular entertainment (dance, bullfights) that is mounted on the basis of a cooperation. For example, the owner of the bullfight ring will not charge for the use of his installation, *rancheros* will provide bulls, and *taco* sellers members of CROC or CNOP (like Carlos) end up serving free meals to hundreds of customers. Carlos:

"It sure is a hell of an expensive evening. But then one doesn't do it just for fun. This way, we know we'll be protected for three years [the duration of the municipal president's term]. Gerardo, you just get along with us *priistas* and we'll teach you how to run a business in El Grullo!"

As we can see from the above, some of the resistances offered to the *taco* project can simply not be eluded. Hence Carlos needs to turn to those organisational areas where there exists some room for manoeuvre. In the case of the minibus, however, the matter is more complicated in the sense that less - not more - room exists for a flexible organisation of the venture. For example, SISTECOZOME has to be taken on board the way it is: no stratagems, no ruses can be developed to keep the system at bay. This is especially true in the case of SISTECOZOME's directives to introduce new midibuses. There is no way Carlos can escape from this: either he considers trading his old minibus for a bigger one within two years, or he can say goodbye to the entire business. In the same fashion, competition cannot be held off: added drivers congest Carlos' route, making the enterprise less profitable. At another level, however, some flexibility exists within the system, and Carlos does not hesitate to take advantage of the motto that "rules are made to be broken." Inspectors, for example, are often paid a "fee" in order that they do not issue too many fines for late arrivals, missed bus stops or - at one point - for letting Carlos drive, notwithstanding his colour blindness.

Answers to operational costs are ingeniously found. For instance, Carlos obtains a cheap loan for USD 8,300 at the *Caja Popular* in 1992, which he uses to finish paying arrears with the credit institution. Or the minibus is sometimes rented out to private parties for a lucrative fee. Or gas equipment is installed in the minibus to cut down on gasoline costs. Despite all these efforts, however, net profits diminish. To be able to stay in business, midway through 1993 Carlos has to devise new strategies to keep afloat.

What do these strategies look like? The first one involves circumventing untrustworthy drivers. The most obvious answer to this - paying drivers a commission - is, as we saw above, a practical impossibility because tickets are seldom if ever issued. Thus Carlos resorts to other tactics, such as taking his drivers out to dinner and to different night-clubs whenever he appears in Guadalajara to check on them - to no avail, as we saw above. Since Carlos' distrust is reinforced on every trip he makes, at one point it becomes imperative for him to operate the minibus together with his driver. This he first does on Fridays and Saturdays since he needs to attend the crowds at the *taco* stall in El Grullo on Sundays.³⁶ After some months however the situation grows unbearable for Anita - especially after hearing gossip about Carlos' minibus "having a skirt" - and the decision is taken that she and the children will join her husband in

the city. The move is first seen as inconsiderate by his in-laws in El Grullo, who fear that they will run into trouble caring for Anita's diabetic mother.³⁷ After some negotiations on the issue, Anita joins Carlos who therefore needs to rent an expensive house (USD 500 a month) and look for a suitable solution to the problem of who can take over the taco business during his absence. The latter is solved when Fernando, an old friend of his, agrees to run the stall and split the profit for at least a year.³⁸ A third strategy to counter the pressure of SISTECOZOME, dishonest drivers, corrupt inspectors and the like involves the idea of opening a series of taco stalls in Guadalajara - along the route of the minibus. This way, Carlos can control two things at the same time.³⁹ The plan partially materialises when a first stall is opened in October of 1993. The stall however does not meet expectations (a "bad spot" is accused for this) and is discontinued.

The firm is dead. Long live the firm!

His strategies notwithstanding, Carlos cannot successfully accommodate the different demands involved in the minibus enterprise. Pressure to repay the minibus, Anita's familial demands (her family expects her to care for her ailing mother in El Grullo), exhaustion (of having to drive 15 hours a day), a high rent and an expensive city-life take their toll. By December, 1993, Carlos sells his minibus⁴⁰ and returns to El Grullo with his family. But before doing so, Carlos gets hold of an option on an operating permit for "Bing's" - a national ice cream chain - which he intends to purchase with money from the sale of the minibus and future savings from the taco stall.⁴¹

The main bottleneck to be solved, though, is that of finding an adequate space to start the ice-cream parlour. At about the same time, however, Alfredo (Carlos' brother-in-law) rents a locale at the *periférico* (business road) on El Grullo's outskirts, and moves the hardware store to the new location. Alfredo's move thus dovetails closely with Carlos' new plans, as an adequate and strategically located facility for the parlour is now on offer. The idea of making and selling ice cream nevertheless introduces a set of related problems: how to obtain cash to buy the equipment needed and make changes to the space left vacant by Alfredo? How to acquire the knowledge necessary to produce and sell ice cream? To remove these obstacles, negotiations take place with a number of individuals. In the end, a strategy to start the ice cream parlour crystallises and a number of roles are laid out: Alfredo will let the space to Carlos; his *compadre* Lucho will be asked for a loan to buy all necessary equipment⁴²; Anita's father will offer expertise in the making of ice cream in exchange for a percentage of expected profits;⁴³ and Carlos and Anita will attend customers and run the business.

The first step - buying the option on "Bing's" with income from the taco stall - turns out to be fraught with difficulties because of Carlos' spoken agreement with Fernando that the latter may run the stall for three more months. This obstacle is removed by ousting his associate Fernando on the ground that he is careless and closes the business if not enough customers appear by 7pm - damaging carefully build-up goodwill. Fernando is offended and does not want to make a big fuss about it. However he comes back one evening three days later, a small calibre pistol conspicuously protruding from his belt. I am there, casually visiting Carlos and Anita, who are in the (not so casual) company of their *compadre* Lucho and his wife, their *comadre* Lupe. Right away, Fernando demands that Carlos reconsiders his standpoint. After plenty of yelling 'yes' and 'no' to each other, Carlos offers to let Fernando have a full week's profit. This does not stop the shouting, however, as Fernando seems not to be very charmed by the proposal. Then, just as I expect a gun to be pulled, Lucho gets up from where he has been serenely observing the struggle. With a sullen voice, he comes between the quarrelling parties:

"Listen Carlos. Don't fight like that. You look like *viejas chismosas* [old gossiping women] this way! The thing is easy. I am going to sign you a cheque for one hundred thousand pesos [USD 33,000] so that you can get rid of your debts with Fernando and start that new thing [the ice cream parlour]. I just want to help you! But beware: I don't want to buy any conflicts. Either you guys settle this right here and now, or there is no deal."

Immediately the 'conversation' takes a more congenial turn. Carlos and Fernando seem to understand what is at stake, and make great efforts to reach an agreement. First Carlos offers two complete weeks of earnings, including two Sundays. Fernando accepts. But then Anita makes a point: from what is the family going to live during those two weeks? After all, she needs cash to cover household expenditure, the children need to go to school (an expensive business considering the amount of candy and french fries an average child can work away in a day), etc. Finally, both Carlos and Fernando agree to share profits over a timespan of one month and three days.⁴⁴

After some drinks to celebrate newly-found harmony, Fernando leaves Carlos and Lucho to arrange their business. Some estimates are made, and in the end it is agreed that a contract for the loan will be signed with a notary public. About repayment, it is agreed that Carlos will make monthly transfers of USD 1,000 until the opening of the ice cream salon when a new compensation schedule will be figured out and negotiated. More drinks are served, and before the third bottle of *mezcal* is

finished, Carlos' *compadre* suggests discussing the possibility of becoming associates in the "Bing's" business...

The transformation of Carlos' projects

When I leave El Grullo halfway through 1994 Carlos' projects do not look the same as they did in 1991 when I first met him. At that time, tacos were a viable alternative for a falling income at the movie theatre's candy store, and the minibus business seemed to offer a way out of stigmatisation and promised a financially generous future. In between 1991 and 1994 many changes had affected Carlos' enterprises and the relationship between them. For example, the minibus was first seen as a supplement to the tacos establishment, but in due time became relatively more important as *taco*-loving customers failed to appear at the stall in sufficient numbers. By the end of our story increasing competition, new legislation and illness had prompted the demise of the minibus venture. Once more, Carlos would channel his efforts towards *tacos* and new ideas.

How should one conceive of these changes, these transformations? Can one hold Carlos' nature (his cognitive and management capacities) responsible? I presume not, for Carlos is not skilled or unskilled, intelligent or stupid. Rather, he *becomes* a skilled, intelligent or foolish ambulant seller and minibus operator through the production of a set of specific relationships. How to evaluate this process cannot be determined beforehand for, in order to succeed, Carlos first needs to define the way to assess his businesses. Are these transformations, then, the outcome of insurgent customers, stigmatisation, or the power games of a public transport system. Well, yes, in a way. But only if all these heterogeneous elements are taken together and seen as a whole. For there is no one particular element that can be privileged when explaining the continuous shifts in Carlos' strategies. Indeed, he incorporates in his networks such seemingly foreign actors as legislators, in-laws and financiers, providing they can functionally contribute to his business' goals. Thus *tacos* are not just *tacos*, and minibuses are not just minibuses. Sure enough, take away *tortillas* or meat, and a *taco* will not be. Take away tires or a steering wheel, and the minibus is inoperable. But less obviously, *tacos* will cease to exist without legislators and a father-in-law, and the minibus will only remain a dream without financiers. Carlos' strategies, then, are of a heterogeneous nature.

Having said this, we now have to turn briefly to the issue of 'strategy'. For in the above account, the suggestion is made that 'strategy' can be held responsible for that which cannot be explained by social, cognitive, technical, economic or other factors on their own. So what status should one accord to the concept of 'strategy'? For example, can

Carlos' struggles to run parallel branches of economic activity be seen as a conscious risk-avoiding strategy? From the point of view of a detached observer, such an argument may indeed be made. But does Carlos see it this way as well? No, since emphasising one branch instead of the other (and vice versa) is an *effect* of a collective in which inspectors, drivers, consumers, PRI cadres etc. become differently articulated with each other. An effect which cannot be reduced to an initial strategy - in fact an effect that is not desired by Carlos in the first place. So perhaps one should conceive of the rises and slumps in Carlos' businesses as a more fluid phenomenon. A phenomenon which Carlos tries to master through the mobilisation of heterogeneous means.

Conclusion

Were Carlos' projects successful? Did his projects succeed in becoming obligatory points of passage between localized and contextualized actors? Did the actors from the global networks have an interest in the products and services offered by Carlos' projects? Did Carlos effectively mobilize local networks, and control the transactions between these networks and the global ones? To provide an answer, we first need to recapitulate on the character of these local and global networks: of what were they composed?

In the case of the *taco* venture, the global network is constituted by diverse actors such as distant and close-by *fiestas*, politicians, or hungry customers desiring *tacos*. These elements coalesced to let the project create its own 'inside': a local network geared to offer some economic or culinary return to actors situated in the 'outside'. Put differently, the global network allowed the project to put together a number of local elements (*tacos*, softdrinks, political alliance, and so on) *successfully*: to the extent that the 'outside' could expect a return, the 'inside' became an obligatory point of passage. Thus in the *taco* business Carlos was able to create some 'room for manoeuvre'. He succeeded in building a context and a content that enabled him to sell *tacos* for a profit. In more theoretical terms, the *taco* stall allowed Carlos' project to act as an obligatory point of passage - even though, in the end, this point of passage proved to be a weak one. But can we hold the 'context' (i.e. a dwindling number of customers as an effect of decreasing economic opportunities in the El Grullo valley) responsible for bringing about this weakness? Not really, for then this same 'context' would make Carlos' plans to start an ice cream salon - involving the same local, paying customers - look absurd. Rather, I propose that the obligatory point of passage was frail simply because Carlos does not love selling *tacos* *enough*. Other ideas, other expectations, other associations emerged which offered the opportunity to engage in an alternative activity. Starting a business then - or giving up one - are

not clear-cut events, but rather incidents that have a trajectory of their own. A trajectory that cannot be reduced to the machinations of 'context' or to economic notions of success or failure. What these events require is an account of how the heterogeneous elements make up these events, and how these are in turn sorted out, ordered, and related to each other differently in each translation attempt.

The case of Carlos' minibus enterprise differs from the *taco* project in that here we witness a shift from a situation in which the minibus acts as an obligatory point of passage to a situation in which it ceases to do so. In contrast with the *taco* business, however, the global network that is essential for the operation of his business has already been put into place by other actors. In fact, then, here Carlos only participated in maintaining a global network that provided legal, material and economic resources, and which allowed him some degree of manoeuvre to operate the minibus. The global network made up of inspectors, permits, directives etc. proved to be too solid, too powerful for Carlos to manipulate at will. All Carlos could - and did - do, was to dedicate his energy in finding ways to 'soften' the impact of a public transport system that eventually brought his minibus to a grinding halt. Thus Carlos found enough room to 'experiment' with the minibus and make private arrangements 'inside', that is, he could associate heterogeneous actors such as his *taco* stall, the *Caja Popular*, drivers, inspectors, his mother-in-law, etc. in different ways. Despite some difficulties in holding together the local network - especially concerning treacherous drivers - the project was first successful as it compelled elements from the 'outside' (especially: passengers) to participate in the exchanges going on between elements of the 'inside'. In due time, however, changes in the global network (an addition of minibuses on the same route; requirements to switch to newer, safer and larger buses) made modifications in the local network necessary. After some trials of strength in which different elements were re-articulated, the 'inside' turned out not to be durable enough to withstand the pressure of dissident drivers, a mother-in-law, or an expensive city life. The minibus project thus stopped acting as an obligatory point of passage between the global and the local network, and finally collapsed. Care, again, should be taken not to blame the 'system' or the 'context' for this failure: thousands of minibus owners - day-in-day-out - still provide transport for Guadalajara's population. Like the showdown of the *tacos*, then, the collapse of Carlos' minibus enterprise cannot be attributed to any one single factor. In the end, the selling of the minibus follows a trial of strength, a trajectory, that is not exclusively dictated by a corrupt public transport system. Rather, the end of Carlos' excursion into public transport is a complex liaison involving a mother-in-law with diabetes, *taco* stalls in El Grullo and in the megalopolis, hungry customers, passengers in a hurry, as well as a corrupt public transport system. Carlos does not sell his minibus because he is squeezed out of business but, as in the case of

the tacos, because he does not love his minibus project enough - when Carlos' objects of passion turn from run-down minibuses and hot tacos to cold ice cream.

To different degrees, Carlos' projects temporarily succeeded in becoming obligatory points of passage. How did Carlos achieve this? How did he enrol the different actors from the global and local networks? As stated in Chapter Two, to address these questions I use the concept of *translation* - that is, the methods of problematization, interessement and enrolment which eventually lead to the mobilization of the global and local networks. In the case of the taco stall, these methods (and their consequences) are laid down or inscribed in a set of intermediaries that circulate between the two networks and which define the identity and the relationships between the actors involved. So, for example, intermediaries such as tacos, softdrinks and money circulate between Carlos and his clients, while at the same time they define the identity of the actors involved: Carlos as a seller of tacos; clients as buyers thereof. The degree of translation is weak, however, and the *collectif* is fragile. *Fiestas*, problems with the sugar industry, Lent or strong competition translate Carlos' clients in a more compelling way. By comparison, in the case of the minibus, translation is more successful. Passengers wish to travel; Carlos is willing to transport them; an *arrendadora* voluntarily grants a loan; SISTECOZOME has enough room to incorporate Carlos' project. Of course, here intermediaries also circulate: credit agreements, operation permits, a minibus or corrupt inspectors all participate in defining the nature of the relationship between the different actors.

Yet why were translation attempts weak in the case of the taco project, and relatively stronger in the case of the minibus venture? Here the notion of *translation regime* is helpful for sorting out these questions. As I argued in Chapter Two, translation regimes refer to those general and local rules that impinge on the character of any network. In the case of Carlos' taco stall, the translation regime is vulnerable. Neither the inside nor the outside of the project can be said to be strongly regulated, and the taco business did not create any rules of its own which could be added to conventions generally followed: the calendar of *fiestas* did not change because Carlos sold tacos. In the case of the minibus, the situation is different: the project was indeed able to create a series of customary practices - drivers buying off inspectors being the most notorious one - and add these to the general regulatory framework. No doubt, the operational mode of SISTECOZOME would crumble to pieces without the addition of these local rules: if passengers demanded a ticket on each and every trip, if inspectors were not corrupt, or if counterfeit repair invoices did not exist then surely SISTECOZOME would be a different animal altogether. This dependency, this reliance of the public transport system of Guadalajara on local, culturally specific rules indeed account for a strong translation regime.

Using the concepts of global and local networks, obligatory points of passage, translation and translation regimes let us now summarise the morphology of the networks in which Carlos' projects are involved. As I spelled out in Chapter Two, a useful concept for describing the morphology of networks is that of *convergence* or degree of integration of the network. The degree of convergence, in turn, can be gauged through a combination of the above concepts. Thus, the more aligned (translated) and the stronger a translation regime, the more the constituent actors of a network can be seen as working together in a common enterprise. Carlos' taco stall, however, cannot be conceived of as forming part of a convergent network. The project thus operates within a *collectif* that is not strongly integrated, that is, not many rules, regulations or cultural arrangements govern interactions within the network. Even though the project acts as an obligatory point of passage, the low degree of convergence endangers viability. The situation is different in the case of the minibus business, where convergence is relatively strong and viability is enhanced through stronger translations and translation regimes. The fact that the minibus enterprise collapsed cannot be attributed to the morphology of the network, but was the result of a failure to sufficiently control interactions with the local network.

Notes

1. In the sense in which I use them, 'global' and 'local' networks are not based upon a geographical metaphor. Thus some 'global' actors may actually be close-by to the locus of a project, while a number of 'local' actors may be in distant places.
2. See Chapter Two for an elaboration of these concepts.
3. See Chapter Two for a definition of these concepts.
4. A passenger bus seating 24 people.
5. These consist of a taco cart, a *torta* cart, a wooden table, knives, napkins, two gas cylinders, a rack of softdrinks, a large, 10 litre jar with *horchata* (a drink made from rice), saucers, a bucket with *tortillas*, a bucket with meat, plastic dishes, a bucket for trash, a bucket with used dishes and a metal container with the day's turnover.
6. Carlos' father was a brother of María Pérez Pelayo, wife of Tarcisio Jiménez (largest store-owner in El Grullo.) María has kept her economic activities separate from those of her husband. She owns real estate and

jewelry shops in Guadalajara, and operates a fleet of trailers with which she transports many goods her husband sells from Los Angeles, California. Both the Pérez and the Pelayo clan from Autlán have united their capital through a number of parallel cross-cousin marriages. Because Carlos was born from an illegitimate relationship he was never recognized as part of the clan. According to Carlos, this was done in order to keep him away from inheritance claims he may have laid on the family's wealth.

7. Anita's family was originally from El Grullo. They lived a year in Guadalajara, a year in Tijuana, and 18 years in Autlán where Don Beto - Anita's father- owned an ice cream parlor in the centre of town. In 1981 the family (together with a sister of Anita's mother) moved to El Grullo, where they bought a large house on the main plaza. There Don Beto opened a small ice-block factory and a rental agency for Public Address Systems, while his wife started a hardware store (of which later Anita's brother Alfredo later became co-owner). Anita's background is quite different from that of Carlos, as she was sent to a private nun's school to finish her high school (Carlos in contrast was raised in a poor neighborhood and attended a government school). Anita has travelled extensively, including Rome where Anita's other brother Carlos (a teacher at Autlán's seminary) finished seminary in Rome. This brother is the family's pride, especially after he officiated Holy Mass together with Pope John Paul II in 1984.

8. The market stalls never turned out to be profitable, as it took customers quite a while to get used to visiting the relocated new market.

9. Anita's mother suffered from diabetes, and her foot had been recently amputated. She needed Anita to be around in the house to take care of the household which comprised herself, her sister Licho, and her husband Beto.

10. These included a tax form, a license from the Health Ministry, and official affiliation to the local CNOP - next to the CROC and the CTM, one of PRI's three corporatist organizations.

11. Valente (Pastor) is a well-known singer in Mexico. He owes his reputation to Vicente Fernández - the country's most celebrated interpreter of *rancheritas* (traditional mariachi tunes - with whom he has appeared on television on a number of occasions). When not out on tour Valente lives in El Grullo, where he owns a restaurant. He is married to a sister-in-law of Anita.

12. Lucho was Carlos' first son's baptismal godfather. The relationship between them dated from the time Carlos was working on one of Lucho's two buses.

13. *Sistema de Transporte Colectivo de la Zona Metropolitana*, a state-run organ which, together with the *Alianza de Camioneros*, is responsible for Guadalajara's public transport system.

14. SISTECOZOME initially issued a batch of 200 permits for a nominal fee of USD 65. A second batch of 400 permits soon followed, but this time the fee increased to USD 230. By the time Carlos considered entering the business, a third batch of 600 permits was being issued for a fee of USD 230 each, but word was out that a next generation of permits was going to cost over USD 1,600. If Carlos wanted to join, it was thus imperative to do so quickly.

15. *Banco Nacional de México*, Mexico's second-largest commercial bank.

16. Alfredo eventually negotiated a loan for USD 66,000 with a local moneyshark who charged 10% a month. However, the loan did not find its way into the hardware store, but was instead channelled to finish building his house at once (according to Anita, this he had done in order to please his wife from Guadalajara who was seen as being "very demanding"). At the time of my fieldwork, Alfredo had finished paying the debt (and building the house, which eventually cost him double the amount of the loan), but in the process the hardware store was hurt badly as money was taken out of it to service the debt and not to restock the inventory.

17. According to Carlos, the smallprint of the document contained many irregularities. Although he made a point about this, he was simply told to "sign or forget about the minibus".

18. The total price for the minibus was USD 21,000. After the down payment, a credit line for USD 17,000 was obtained through "Arrendadora Havre" from Mexico City. This *arrendadora* was itself a subsidiary of "Arrendadora BANAMEX", a branch of BANAMEX. The terms of credit determined that Carlos had two years to repay, at an annual interest rate of 35%. In the end, Carlos would thus have ended paying close to USD 30,000 for the USD 17,000 he initially borrowed. The director of SISTECOZOME himself had made the purchase of "Havre" minibuses mandatory. Apparently, through this manoeuvre the director had obtained two "executive" minibuses (with 16 plush seats and air conditioning) as a present from the company that builds the bodies and mounts upon Chevrolet chassis and engines.

19. The franchise, to be renewed every second year, cost Carlos an additional USD 500. Considering the high demand for profitable routes, it was common practice that only the highest bidders could obtain one.

20. This figure, however, does not include the servicing of the loan, depreciation of the unit, repairs and driver's salary.

21. Another example of this seasonality is the Lent, which is a big thing locally, and many would-be customers stick to eating fish instead of meat.

22. Ambulant sellers needed to pay a fee for each square meter of sidewalk they occupied. In El Grullo, this amount ranged from USD 1.50 per square meter per day as in the case of Carlos, to USD 8.30 for *tianguistas*, to USD 5,000 (!) for setting up an attraction stand for a fortnight at El Grullo's carnival.

23. Annoying customers were always a part of the picture, but little could be expected in terms of protection from the police. This I observed on an occasion when a drunkard -playing with a knife- was pestering Carlos. Carlos had a boy go and fetch the police. The boy returned with the message that Carlos should kick the drunkard away himself.

24. The parlor only opened on Sundays, the most profitable night. As I observed myself (I was cashier at Carlos' on a number of Sundays) sales decreased by nearly 25% immediately after the pizza parlor started operations in December 1992.

25. "Tres Hermanos" was a relatively large undertaking. It was "American-style" in that filling for the *tacos* (meat, poultry, fish, sauce, cilantro, etc.) were displayed in hygienic aluminum containers built into a large wooden bar and covered by glass shelves. Customers only needed to point to the object of their appetite and an attractive, young female attendant with a white hat, plastic overall and polyethylene gloves would come to their aid and carefully carry out the request.

26. With some 1,500 buses driving around for SISTECOZOME in 1992-93, monthly concession fees added up to a lofty USD 60,000. This figure was supplemented by fees (USD 3) asked for every changing of drivers if the minibus was operated for longer than 8 hours (a common practice).

27. For example, the departure times of minibuses (at the starting point of the route) as well as the arrival times at certain junctions had to be strictly followed by drivers. In case of early departures, "non-arrivals" at uncrowded (unprofitable) bus stops, or delays on the route (which could in principle always be because of the chaotic nature of Guadalajara's traffic flow) a fine of USD 3 had to be paid to SISTECOZOME.

28. As from October 1993, the *Caja Popular* stopped extending credit to all but a few of its members. The argument for this policy was that the rate of repayment of credits had fallen from over 93% in 1992 to a mere 57% halfway through the next year.

29. Minibuses needed to have a minimum number of official exits per day. On Carlos' route, this minimum was five.

30. Visits to repair shops were difficult for Carlos to confirm since mechanics and drivers connived to 'beating the system' by exchanging counterfeit invoices and money or favors. (These practices, though, were made more difficult through the issuance of standardized invoices made mandatory by *Hacienda* in 1993).

31. Officially, drunken driving or driving with a heavy hangover was an impossibility because SISTECOZOME took alcohol tests on its drivers every day. In practice however the test could be circumvented through a *mordida* (bribe), or by drinking *en route*.

32. Demand however was not enough for the innovation to be profitable and the experiment was soon discontinued.

33. This entailed some arrangements with friends owning a vehicle (I myself had to help out on a number of occasions), since the trip with the bus would take too long and the meat would start thawing. Also, buying meat in Guadalajara entailed new difficulties, the most important one being the possibility of buying on credit - which was more difficult in an anonymous wholesale market.

34. Campaigning is a big thing in Mexico, and can be pretty expensive as well. For example, in El Grullo a regular campaign for a municipal president can cost up to USD 65,000 - not including political support.

35. Sometimes Carlos - member of the CNOP - did not attend to the meetings himself, but instead 'hired' a *tianguista* (ambulant market seller) to do the job for him. In such a case, besides paying for the lost income and trip costs (including food), possible resistance by the *tianguista* was overcome by offering *tacos*, *tortas* and softdrinks from time to time (and of course by covering the expenses of the 'representation'). One of the main mechanisms of PRI staying in power for such a long time is that it is supported in this way by small-scale traders, *tianguistas*, *ejidatarios* and the corporatist unions: CTM, CNOP, CROC, CNC and CNPP.

36. In Guadalajara, Carlos was living in a house of an acquaintance from El Grullo who had been trying to sell it for over four years. In return for cleaning, taking care of the house and showing it to potential buyers, Carlos was allowed to live there free of rent.

37. Beto, Anita's father, did not do much for his wife since he left home daily after breakfast to pass most of the day with another woman with whom he had a longstanding relationship. Anita's mother, grudgingly went along with

the situation. To make clear to the outside world that she was still number one, however, she put forward one condition: that her husband be at home for breakfast, lunch and dinner.

38. The arrangement had not been without effort. In June 1993 Carlos looked for Fernando in his *rancho* to propose the deal. Fernando had to think over things twice, since he had been offered a steady job at a *taquería* (taco shop) in Anaheim, California where he could make USD 350 a week. Carlos even visited Fernando a second and a third time to beg him. The last time Fernando consented. For Carlos, the deal implicated that he had to provide all the meat, while Fernando would pay for the softdrinks, bread and *tortillas*. The revenue would then be split as follows: 40% for Carlos (who provided a strategically located stall with a good number of clients) and 60% for Fernando. The deal, however, was never put on paper.

39. For reasons to do with trust, Carlos initially thought to employ colleagues from El Grullo only. To cut down on living expenses, the operator of the stall -a friend from El Grullo- would be living at Carlos'.

40. The minibus was sold to a car dealer for USD 8,200. Of this, nearly half went to the *arrendadora* to finish servicing the initial credit.

41. This was quite a costly business. Apart from the USD 14,000 he would have to lay down for the concession, Carlos also needed to finance a marketing study to be carried out by "Bing's" headquarters.

42. This involved various ice cream machines, refrigerated counters, a glass front to the store, air-conditioning, a new floor, tables and chairs.

43. Anita's father had virtually been into ice-cream and ice-block making all his life. Carlos' plan to get involved in this line of business as well was, however, unrelated to his father-in-law's profession.

44. The three 'extra' days were included in the agreement because of the nearing Lent (no sales on Fridays) and Mardi Gras, when the stall would be closed because Fernando and Carlos planned to visit the carnival of Autlán together.

CHAPTER 5

FERTILE SOIL FOR BARREN EARTH

Strategies, Resources, and a Bar

It is a cold December night. I have just moved to this specific neighbourhood - not far from the centre of town - and am out 'checking' for possible shops with which to start my case studies. Out of the six *tiendas* (shops) on our block, there is one that calls my attention straightaway. It is located next to a dentist's office, and just opposite to a huge pile of garbage waiting to be collected early in the morning. Outside, two brightly-lit commercial advertisements strongly solicit customers' attention. One displays a huge yellow star, surrounded by the brand name of a beer: *Cerveza Estrella*, which it seems is intended to seduce thirsty clients. Another one beautifully depicts a rooster and a dentist, the latter in the process of pulling out one of the rooster's teeth. Just below a pool of blood in which the rooster stands, I read a slogan in buoyant red letters: *Aquí le sacaron la muela al gallo* (here the rooster's tooth is taken out). This appears to be the name of the shop. No doubt, the advertisement is designed to tempt price-conscious patrons. I fall prey to the inviting displays and enter the store. Inside Chabelo, a plump man in his fifties, welcomes me with a charming smile:

[CHABELO]: *Good evening. What will it be?*

[GERARD]: *Cigarettes. Marlboro. And do you have matches?*

[CH]: *Here we carry all you may need... Are you the one living in Pedro's house?*

[GE]: *Yes, we just moved in last week.*

[CH]: *So where do you come from?*

[GE]: *Holland. That's close to where the Pope lives.*

[CH]: *Ah, Holland... Very good football team you've got there! That nigger son of a bitch, I think Gullit is his name. What a player! Tell me: I thought that over there everybody would be tall and blond like yourself and that guy working at the SARH [Ministry of Agriculture and Water Resources]. Is that not so? Why is Gullit playing with the Dutch team?*

[GE]: *Well, his dad came from a Dutch colony, so now he has Dutch nationality.*

[CH, puzzled]: *I never thought about that...*

Chabelo reaches for a five-litre plastic bottle containing *mezcal*:

[CH]: *Here, so that you may warm up a bit! It's damn cold tonight, isn't it?*

I accept, and ask for a soft drink to dilute it. Chabelo serves me a glass which he gets from behind the counter, gives it to me and asks:

[CH]: *So how much are you paying for Pedro's house?*

[GE]: *Six hundred*

[CH]: *¡jule! That's a lot, my friend. He must have thought you were American. You'd better come and see my place: I'll rent it to you for just a little more, but it's nearly twice the size, and it's got a beautiful garden full of coconut trees and mangoes. Nice and fresh!*

[GE]: *Well that's very kind of you... but I've just signed a contract with Pedro for a year.*

[CH]: *Never mind that contract. That Pedro is just as crooked as he can be... First you should come and see my house... Anyway, I'm new in this godforsaken neighbourhood as well, so that makes two of us!*

[GE]: *You mean you just got started?*

[CH]: *That's right. I rented the place a month ago and got me some chivas [things] to sell...*

[CH]: *... but I still have to clean up the place. If people buy food with me, it should be clean, right? And the fridge still has to come. Son of a bitch... why do they always like to keep one waiting? Here, have another mezcalazo, you and I are going to improve this neighbourhood, you'll see!*

We all take another mezcal, and move some chairs outside the shop and onto the sidewalk. There we continue our conversation. Two dogs inspect the contents of a garbage sack while Chabelo, now in a negative mood, starts cursing about a two-week old city council ordinance which states that all shops should close by 9 p.m. and not by 10 p.m. as was habitual. Chabelo:

"I'll be losing my income! Is the council going to pay me for the difference, or what? And where do people get their milk and bread from if they can't shop before nine? That's just not fair! I know what it's all about: it's the *Mandamás*¹ who is behind this move. After all, he does not benefit when he closes at eight while all others stay open. But I'll just keep open until I like. If others want to close earlier because they are afraid of the police: that's up to them. If they get tough on me I'll get a lot of signatures and send them to the proper authorities in Guadalajara; just wait and see!"

What can one infer from the casual encounter described above? "Not much", some would argue. "A window to power exercised on local policy by large store owners", others would say. And maybe others would remark that spirits bring about a relaxed conversation in which all sorts of anecdotal information is exchanged.

To me, the episode is interesting enough to start writing a book. For the small exchange of words already draws, delineates and de-scribes an actor-network. A *collectif* in which all sorts of heterogeneous

elements - both distant and close, and related to the past, the present and the future - are freely associated with one another. Thus the small vignette de-scribes a world made out of watchful shop owners that keep an eye on their neighbours and assign a reputation to distributors of consumer goods; innocent researchers paying excessive rents and attributing geographical ignorance to their research subjects; global media matching countries to the qualities of football teams but banning windmills, wooden shoes, or colonial and racial relations from their broadcasts; hierarchical relations between shop owners and their friends; legal arrangements that curb the sale of spirits under the counter; changing political relations that make room for collective action mediated through signatures. Add a few lines to the above account, and the list of associations would increase, taking one into the realm of Chabelo's household, the domain of his emotions, or the province of his love-life. In short, more associations take us into the field of *practice*.

Descriptions such as the one presented above provide, in principle, a window on whatever terrain we wish to study. But this is a methodological point. What I am interested in, rather, is to provide a statement about the character of the *collectif* of which Chabelo is a part, and to relate this character to the feasibility of his enterprise. To make such a statement, I need to follow and describe Chabelo's projects as they unfolded from the end of 1992 to halfway through 1994 when my fieldwork ended. This, however, is an arbitrary moment in time. To fully understand the problems Chabelo faced in carrying out these projects thus necessitates some degree of historical qualification. So let us delve briefly into Chabelo's past.

Chabelo: the emergence of a project

Chabelo can be characterised as an eloquent, outspoken man with a strong inclination to have things his way. This was already apparent at school-going age when, against his father's orders, he preferred hanging around the local mechanical repair shop to attending school. His aversion to school was such, that his father - an *ejidatario* from Ayuquila - bought 120 goats for Chabelo to take care of. Chabelo:

"But I always disliked, and still dislike agriculture. My father would hit me for it... But still I didn't take care of the animals properly because they quite simply didn't interest me."

Chabelo had other plans. He takes up a mechanical apprenticeship at a shop in Autlán, where he learns enough skills to join a passenger bus company doing the Manzanillo-Autlán route to attend breakdowns. With the income, Chabelo rents a house in Ayuquila, where he marries Victoria

his neighbour. The marriage does not function, and after a year the young couple divorce - leaving Victoria with a daughter. Because of the incident, Chabelo is more-or-less forced to leave the community. He moves to Colima, where he earns a living driving 20-litre drinking water gallons around town.

By 1965 Chabelo's father develops an eye ailment that prevents him from working full-time on his *ejido* fields, and Chabelo feels obliged to support his parents financially. This entailed that a higher income was needed. Looking for a more remunerable job, Chabelo ends up working a 3-year period in Indio (California) where, together with his older brother Margarito, they dig ditches for a local cable-TV company. Chabelo earns a fair bit of money while in the US, and is able to send some remittances back to his parents. However, billiards, dancing parties and women see to it that not much is left when his father's condition deteriorates and Chabelo is summoned to stay "close to home" for any eventuality. So by 1970 Chabelo returns to Colima for good, and financially supports his parents through his income as a passenger bus driver. After two years of driving Chabelo gets tired of the irregular driving timetables, and takes on a job as milk collector for a local dairy firm. He supplements earnings working for a distributing agency, supplying grocery shops with a number of basic products.²

At about this time Chabelo marries Juana, daughter of a shop owner in Armerfa and client of his. With the help of Juana's father, the young couple builds a house on a plot close to Juana's parental home. The situation remains unchanged until halfway through 1973, when the distributing agency goes out of business. It takes Chabelo a while to find some new source of income, but by the end of that year he is again driving - this time a taxi in Colima. The job is discontinued when, a year later, Chabelo's mother dies. Since none of Chabelo's brothers or sisters feel responsible for taking care of their nearly blind father, Chabelo and Juana move to Ayuquila to help. There Chabelo borrows some money from friends and from his baptismal godfather Goyo, and buys a taxi which he operates in nearby El Grullo. The activity is short-lived, though: because of Chabelo's extrovert attitude, he soon builds up a wide network of influential friends and is elected municipal traffic delegate by way of the taxi driver's Chapter of the Union (CROC). This assignment brings Chabelo into close contact with local PRI cadre, who in turn are instrumental in offering him his next - very 'profitable' - assignment: that of inspector of the 'Melchor Ocampo' sugar mill. His main duty is to inspect the state of farmers' sugarcane and assess whether or not it is mature enough to be harvested and sent to the mill. Chabelo keeps his position for two administrations (six years), in the process amassing what could be called a little fortune by local standards.³ Most of this is spent on women, bands and drink, but a part of it nevertheless finds its way into an expensive house in El Grullo. By 1983, when he is removed as inspector,

Chabelo has already shifted the bulk of his activities into usury and growing sugarcane on his father's 6-hectare *ejido* plot - which by that time has been registered in his name.

Between 1983 and 1991 there is relative tranquillity in Chabelo's life. He attends his moneylending business and his sugarcane, while his wife Juana takes care of Rodolfo their son and her father-in-law. In 1987 Chabelo increases his real estate assets when one of his clients cannot repay a loan and exchanges a 700 square-meter urban *ejido* lot in El Grullo for the outstanding debt. By 1990 Chabelo grows tired of the sugar mill - which is having difficulty in paying sugarcane producers - and rents 4.5 hectares of his land to Carlos who, as local head of the CNPP (National Union of Private Landholders) does not seem to be bothered much about the lack of liquidity of the mill.⁴ Tragedy, however, strikes Chabelo and Juana in July 1991 when their only son Rodolfo is murdered at age 12.⁵ To make things worse, Juana's mother develops an illness only months later and, with nobody to attend her, Juana leaves for Colima. Meanwhile, Chabelo is left alone with his father who has already moved into his place in El Grullo.

When I meet Chabelo at the end of 1992 he is living with his father, Rosa and her twelve-year old daughter Sol. Rosa has been hired in mid-1992 to cook, clean the house, and take care of changing Chabelo's father's diapers, and is initially living in a side building at the back of Chabelo's garden. However, after a few weeks a relationship engenders between Chabelo and Rosa, to the effect that she becomes pregnant and takes up quarters inside the main house. According to Chabelo, his wife Juana officially knows nothing about the affair, "but surely some gossip must already have reached her." As for Juana herself, she never travels to El Grullo, rents a house in Colima for herself and her mother, and runs a small grocery shop. Once a month Chabelo pays them a visit, bringing along USD 650 to help cover her expenses.⁶

Chabelo's main source of income is still the interest he charges for lending out money, but profits seem to be decreasing because of the general economic crisis which more and more often prevents his 'customers' from fulfilling obligations.⁷ In addition, Chabelo is receiving an income from the rent of his plots and from the shop which he has recently opened "out of boredom". As it seems, the idea to open the shop is given to him by his godfather Goyo, one of El Grullo's largest shop owners. Apart from giving Chabelo the idea, Goyo also contributes by providing the initial inventory and necessary contacts to open accounts with softdrink and beer bottling companies (which in turn provide the refrigerators), as well as a permit to sell beer. All Chabelo needs to do is to look for a suitable locale for the shop (and for which he pays a monthly rent of USD 260, including electricity). Otherwise, Goyo supplies most canned food and detergents, Eulalio Zamora (a local wholesaler in

perishable goods) provides fruits and vegetables, and different distributors sell the remaining merchandise (mainly candies, softdrinks, beer, bread and potato chips). A number of products Chabelo buys at "La Compañía" - El Grullo's largest supermarket - because its prices are often lower⁸ than those offered by official distributors (such as stationery, deodorants and other drugstore goods, diapers and baby food, chilies and *mezcal*). Chabelo does not exploit the shop fully (depending on his mood it may open or remain closed), but he is certainly operating with a profit: on most products (except beer, softdrinks and a number of subsidised 'basic needs' goods such as sugar, toilet paper or bread) he makes 20%. Chabelo does not keep track of daily trade, but according to my own calculations daily sales of over USD 125 are not uncommon.⁹ Except for perishable goods and the products he buys at "La Compañía", Chabelo pays taxes over all his invoices.

Two months after I first meet Chabelo new plans are taking shape in his head. These are centred around his new lover Rosa, an ambitious woman in her late thirties. She has proposed that Chabelo open a *centro botanero familiar*¹⁰ (bar) and let her operate it. Rosa has plenty of experience in this line of business, and persuades Chabelo that a well-run *centro* may earn him many times that which he is making from the store, renting out land or lending money. Chabelo:

"Well of course I know that a *centro botanero* [bar] can be a little gold mine. The thing is, you have to take account of two things. First, it must be a place that can be frequent by families to attract as many clients as possible. If you start having whores and loud music inside, neighbours will always find a way to have your business closed down in a year or two. I've seen that all around, I know what I'm talking about. And the second thing is that you need someone you can really trust to run the place. If not, soon everybody will be eating and drinking at one's expense."

***Ejido* councils, landowners and beer companies: possible collaborators?**

To push through his plans, though, a number of actors have to be enrolled. Let us now turn to these actors, and the reasons why they should be enrolled. In the first place, Chabelo sets out to seek a suitable place to start the *centro*. It does not take long before he finds one: a plot just over 1,000 square meters that is on sale close to the business road skirting El Grullo and near the exit to Tonaya. The main reason he gives for liking the plot is its specific location:

"I don't know why, but lately everybody is starting business in that area of town: two *centros botaneros*, Ramona's canteen, Valente's restaurant, the tyre shop and the electrical garage, the car wash and "El Mariachi" [a large hall]... there's something in being all together, I guess, because the business of one attracts customers for the business of the other."

The owner of this specific plot, Rafael, is selling for USD 60,000. The problem however is that Chabelo cannot pay cash. Rafael, then, has to be convinced to trade the plot for something else. This turns out to be Chabelo's six hectares of *ejido* land in Ayuquila. All of Chabelo's friends try to convince him of the "foolishness" of the exchange, but Chabelo argues that he wishes to get rid of it because it reminds him of his murdered son with whom he often killed the hours on the plot. A second reason for the exchange is that Chabelo is tired of being a farmer - a profession he never liked anyway. Indeed, Chabelo is always complaining about the difficulties entailed in sugarcane production (or, for that matter, in agriculture generally): no availability of credit, low prices, no incentives, worsening terms of exchange between industry and agriculture, and so on. Chabelo:

"What Mexico needs to progress is to pay attention to its agriculture. But since nobody does, then doing so oneself is like trying to swim against the tide."

Since ongoing prices for one hectare of irrigated land run at about USD 10,000, in terms of economic value the properties are comparable. The crucial question at this point is: will Rafael accept the deal?

A second party Chabelo needs to interest in his plan is the *ejido* council. Officially, *ejido* land can now be legally sold after the changes to article 27 of the Constitution. Nevertheless, a majority of the council needs to endorse the transaction and there is no guarantee whatsoever that they will do so. The *ejido* council is thus one more riddle to be solved. In the event that the council and Rafael can be enrolled into Chabelo's plan, then the next problem involves Carlos who is renting part of the land Chabelo wishes to exchange. The agreement is that Carlos will rent for at least three harvests (or nearly five years, of which two have already elapsed). An additional problem is that Carlos has paid the total rent in advance (USD 9,000, or USD 400 per hectare/year). The agreement was formalised in the form of a contract, thus if Rafael becomes the new owner, then either Chabelo must convince Carlos to withdraw from the agreement, or he must persuade Rafael to let Carlos carry on renting.

But not only does Chabelo need to interest Carlos, Rafael and the *ejido* council. As the project takes shape, other actors need to be involved

too - thus increasing complexity. For example, before being able to open the *centro botanero* Chabelo will need to obtain a building permit, different municipal licenses to obtain water, sewage and electricity, and authorization to sell alcoholic beverages and food. Of these, the most difficult to obtain is the liquor license. However, things are made easier because Chabelo can still count on political support at the municipal level through Lucio¹¹, an old friend of his and at the time alderman of El Grullo - and who he may convince that the bar will be *familiar* (no whores, no overt noise). At any rate, and even if Chabelo succeeds in procuring all the necessary permits for the operation of the bar, a crucial problem in need of resolution is that of securing enough cash to build the *centro*. To this end, Chabelo puts pressure on a number of his debtors, and decides to sell his urban plot in El Grullo to an interested party.¹²

Apart from these preliminary needs, there remains the issue of the organisation of the *centro* itself. Chabelo reckons Rosa will be in charge of preparing snacks and running the business, while a young lad will take care of the Michoacán-style *carnitas* (a meat dish) which he plans to sell. Rosa of course does not have to be enrolled in the project, and neither does Chabelo have to go into difficult negotiations about the procurement of the meat as he had already contacted a man in Ayuquila willing to deliver at least one pig a week for the *carnitas*. As for the infrastructure, the main problem to sort out concerns the tables and the chairs. *Superior* (a beer company) delivers them free of charge if the brand is sold on the premises. From experience, however, Chabelo knows that the local population prefers *Corona* beer over *Superior*. Unfortunately for Chabelo *Corona* does not normally offer the same service as its competitor. Since Chabelo is not willing to compromise on the quality of the beer to be served, negotiations with the regional head of *Corona* in Tecolotlán are put on his agenda as well.

One final and important hurdle Chabelo needs to take concerns his family: his father, his brothers and sisters, and his wife. They are all very much against the trading of what they see as family property, and therefore argue that it is not up to Chabelo to make critical decisions such as the exchange of the *ejido* property. Chabelo's position on this, however, is that there is no need to consult his family on the matter. After all, he argues, his father has officially put the property title in his name¹³ and hence the family may not interfere in his decision.

Testing resistances: demands, expectations and strategies

To enrol all the heterogeneous actors involved in his scheme is not a straightforward activity. In order for his plan to function properly, Chabelo must confront their resistance. The first and most elementary party involved in the project is Rafael, owner of the plot Chabelo wishes to

exchange for his *ejido* property. Is he willing to exchange his urban plot for another property, not cash? Eventually, and after many drinking sessions with Chabelo, Rafael is convinced of the opportunity to own agricultural land, and agrees to the exchange.

The exchange itself is not unproblematic, however. According to the new Article 27 of the Constitution, the transfer of *ejido* property is in theory sanctioned by law. In practice, however, PROCEDE (an institution in charge of issuing formal titles to *ejido*-plot owners) is still in the process of measuring plots and has only made a head-start in turning over State-owned property to individual *ejidatarios*. Since PROCEDE officials assure both parties that - in the case of the *ejido* of Ayuquila - the process of ratification is nearing completion, Chabelo and Rafael concretize their agreement and sign an "in principle" deal in the presence of a notary public.¹⁴

More substantial obstacles only appear some days after the signing of the deal, and center on the pension, the thirteenth month of nearly USD 1,000 - both paid by the sugar mill - and the automatic access to Social Security (IMSS) which by federal law covers medical expenses for the wife, children and parents of owners of land on which sugarcane is grown. These benefits have been left out of the deal and, - apart from Chabelo's pension - Rafael assumes they will automatically be passed on to him. Chabelo however thinks differently about the matter and argues that, since PROCEDE has not yet finished regularizing plots, he is still the official holder of the property and thus qualified to make use of these benefits.

Although the agreement with Rafael is rounded off in principle, the deal hinges on another party: the *ejido* council. Officially, once individual property titles have been handed over by PROCEDE, a majority of the council, as we have seen, still needs to agree to let Chabelo sell his property to an outsider. This is by no means a certitude, especially in light of the fact that Rafael has a long-standing conflict with Moi, the present president of the council (and a cousin of Chabelo) which involves alleged fraudulent practices committed by Rafael.¹⁵ Uncertainty thus characterises Chabelo's project at this stage.

Another uncertain factor concerns Carlos, who is renting the plot. So far, Carlos has been convinced to withdraw from the renting agreement. To this end, however, Carlos puts forward two conditions. First, he insists that Rafael can only start growing sugarcane in nine months, after Carlos' next harvest. Secondly, he demands that Chabelo refund half of the rent that was paid in advance. Both conditions prompt a temporary stale-mate of Chabelo's project. For one thing, Rafael is not very keen on waiting nine months before he can start sowing his own sugarcane. Also, Chabelo is in no position to repay Carlos, as the sum advanced has already been spent. The situation is thus as follows: if Chabelo wishes to succeed in his project, then resistance by disparate elements such as

benefits, *ejido* councils, Carlos's demands and Rafael's expectations should be overcome.

Yet, on other fronts a diversity of ingredients also defy Chabelo's plans. For example, the pending issue of freeing cash to start building the *centro*. On this front, strong opposition is offered to Chabelo's project. His debtors - most of them women who have borrowed from him to buy durables such as furniture, TV sets or refrigerators - present all sorts of excuses for not paying their arrears. When pressed, they will avoid walking past Chabelo's house in order that they are not seen. Or they will not themselves buy at his store but instead send their children to do the errands. Other debtors will seek alternative ways of dodging Chabelo, for example by hiding.¹⁶ In any event, it proves very difficult for Chabelo to obtain anything from broke debtors. But this is not all. In addition to benefits, councils, demands, expectations and unwilling debtors, Chabelo's creditors potentially endanger his strategy. In the past some of them have offered him to condone their debts in return for a part of Chabelo's *ejido* land. Chabelo always referred to the legal impossibility of this construct, but now, with changes in the legislation, and with his creditors knowing about the possible deal with Rafael, they may suddenly jump on his back and demand their outstanding money. Chabelo does not seem to be very disturbed by them, but I often see him playing the same game his debtors play: avoidance, hiding and feigning amnesia are ruses he masters with perfection. At any rate, Chabelo cannot deny the fact that, as soon as his creditors get wind of him having some cash (e.g. to start building with), they will immediately jump on his back.

On yet another front - that of building and running the *centro* itself - hindrances soon show up. Chabelo's initial idea is to build a conical *palapa* (wooden structure), for this is an inexpensive alternative to other, more costly types of building. In addition, a *palapa* is much cooler than corrugated iron roofs, and is easy to clean. Here, however, resistance comes from unexpected parties. Fireworks, for example, have been known to have a predilection for thatched roofs - which they can easily set afire. Likewise, envious neighbours, passionate family members or ill-tempered creditors can burn down a *palapa* in a matter of minutes. In this case both humans and non-humans are thus potentially conspiring against Chabelo's project.

As for Lucio, the alderman who is expected to help out with the liquor permit, things look fine as he seems willing to co-operate. However, other official business lying outside Lucio's field of competence may oppose the building of the bar: social security for workers at the work site, the Commission of Land Tenure (CORETT), *Hacienda* (Ministry of Taxes), *Asentamientos Humanos* (Human Settlements) and the Department of Ecology. Apart from the time that needs to be invested in procuring these permits from official instances, these hindrances can in principle be worked out.

Of a more serious nature are issues concerning the brand of beer to be sold at the *centro*, and the control of labour. Concerning the beer, the problem seems to be that, through his store, Chabelo is registered as a wholesale seller of *Corona* beer. This means that *Corona* is not willing to deliver if the *centro* opens in Chabelo's name since he can then buy cheap as a wholesaler and sell at a much higher price (at the *centro*). This runs against *Corona's* policy which adheres to a differential pricing formula: one for wholesalers and one for restaurants, *centros* and the like. Concerning labour, potential complications soon surface. On more than one occasion Rosa and her daughter Sol -whom Chabelo wants to help out at the *centro* as waitress- has a row with Chabelo and leaves the house for a number of days. The background of the fight is related to Chabelo's womanising inclinations. Thus Rosa tells me that Chabelo is a "good for nothing", and seriously doubts the future of their relationship. What is at stake here, then, is Chabelo's idea to let the *centro* be run by a knowledgeable, trustworthy and reliable person whom he could totally control. This same basic uncertainty applies to Sol, as Chabelo already has had some bad experiences with her because she - when attending the shop - prefers to close early and enjoy the rest of the day with her boyfriend.

Although these human (creditors, labourers, *ejidatarios*) and non-human (fireworks, permits, beer) entities possibly endanger the implementation of Chabelo's project, the strongest resistance comes from within his family. This resistance has been building up ever since Chabelo inherited the *ejido* land, but is now specifically focused on trying to stop Chabelo from trading. The initiator of the resistance is María, married to Chabelo's eldest brother. She has always argued that it is her husband, not Chabelo, who should be the 'natural' inheritor of the property. María's claim, however, is not honoured and the land is officially registered in Chabelo's name. Ever since then, María allegedly sets up her husband and her eldest son Primo against Chabelo. Primo, out to punish Chabelo, in turn convinces his half cousin Mario - a son of Chabelo born out of wedlock - that he (Mario) should try to lay a future claim on the *ejido* property. One way, Primo tells Mario, to ensure that the land will later be registered in his name and not in that of his half-brother Rodolfo (Chabelo's legitimate son with Juana), is to make sure that Chabelo has no legal successor other than Mario. Mario, with the doubtful reputation of being "crazy"¹⁷ and at that time enlisted in the Army, takes his half-cousin's suggestion in earnest and strangles Chabelo's son. Mario, aged 22 at the time of the crime, is incarcerated but released after only two months in prison.¹⁸

The problem at this stage is that Mario, who seems to be up to date with Chabelo's plan to sell the *ejido* land, allegedly starts slipping menacing notes under Chabelo and Rosa's door. The content of the notes is always the same: it is of no use Chabelo trying to sell the land. He

(Mario) will always find Chabelo and his new family, and kill the offspring.¹⁹ Since the notes invariably make reference to Chabelo's latest moves, at one point the situation becomes so tense that Chabelo no longer sleeps in his bed but guards the door, and even suspects his closest friends of passing on information.

Enrolling new resources, catharsis, and transformation

Even though Mario is his son, Chabelo considers that he is a scorpion in need of extermination. To bring about this, Chabelo puts a price on Mario's head. An interested party shows up but, upon learning of the context, backs off from the deal by arguing that Chabelo will appear as the main suspect. The only possible alternative, the man proposes, is to follow Mario's steps and murder him in some far-away locality where nobody knows the intended victim. This operation is dismissed by Chabelo on grounds that it is too expensive to have Mario followed, and for a time the matter is put to rest. Menacing notes, though, keep arriving at Chabelo's address.

Meanwhile, problems with the deal with Rafael are being ironed out. Rafael reckons that it is impossible for him to lay a claim to Chabelo's pension, and it is agreed that the issue will not be a part of the deal. The discrepancy over social security benefits is also dropped after the notary public makes clear that only the person (and family) whose name appears on the property title will be covered. Thus it is agreed that Chabelo will be covered by social security until the title deed has officially been transferred to Rafael. Likewise, the issue of the thirteenth month is straightened out formally: Chabelo drops his right to it and lets Rafael claim the thirteenth month for 1993. However, Chabelo intends to charge Rafael at some other point, when the latter asks for Chabelo's signature to be able to have access to common *ejidal* property - a concern which was left out of the original understanding.

The problem with Carlos' demand is of a more complicated nature, and entails some manoeuvring before it can be solved. Carlos has already rented for two years, thus he should in principle be compensated USD 5,400 for the remaining three years. Since Carlos still has to wait an additional 9 months for the harvest, a proportional part of one year's rent should go to Rafael, who agrees to wait with planting his own sugarcane until Carlos finishes his own *zafra* (sugarcane harvest).²⁰ Finally an agreement between all parties concerned is reached: Chabelo will reimburse Carlos a total of USD 4,000, and pay Rafael the equivalent of 9 months' rent (USD 1,350). Since money has to be paid in cash, there is no alternative for Chabelo but to sell the only thing he has left to sell - his carefully maintained 1981 Dodge pick-up truck - for USD 5,000. This sum, however, is first used to repay an outstanding debt of USD 3,300 at

the *Caja Popular*. To preclude interference by possible creditors who are quick to notice that Chabelo has sold his pick-up truck, that same day Chabelo deposits the remaining USD 1,700 in his account. Using this deposit as collateral, he then asks for a credit of three times that amount.²¹ After ten days the loan is authorised by the *Caja Popular* and disbursed, and Chabelo immediately pays Carlos and Rafael.

Uncertainty concerning the *ejido* council's acceptance of Rafael as a new member is dispelled during a drinking session between Chabelo and his cousin Moi, who is president of the *ejido* Assembly of Ayuquila. Moi is initially adamantly against letting Rafael become an *ejidatario* because of his long-standing dispute with him, but Chabelo seems to soothe him:

"I told him that he was damaging me because he had a quarrel with Rafael. I said to him: 'Don't be so resentful. Later, when the *centro* is finished I'll treat you to some *vino* [alcohol] so that your anger is lessened."

Having sorted out these heterogeneous problems, for a time Chabelo's project seems to be heading in the right direction. One of the remaining obstacles - freeing cash to start building - is solved after reaching an agreement with Manuel Robles, a long-time acquaintance of Chabelo's and owner of El Grullo's largest hardware store. Both agree that Manuel will provide all necessary building materials in advance without Chabelo having to pay any interest at all for two months. This is a crucial turning point in Chabelo's project, especially in light of Chabelo's refusal to build a cheap but rickety and potentially fire-prone *palapa*. With the agreement, Chabelo can now build a more durable structure of bricks and cement. Thanks to Manuel's help, the remaining resistance to Chabelo's project - apart of course from the insoluble problem with his son Mario - comes from two sources: that of the beer distributing agency and that of labour control. Negotiations on the free provision of tables and chairs by *Corona* do not materialise. Furthermore, *Corona* appears to be unwilling to sell its product at wholesale price, the reason being that Chabelo already pays wholesale prices for *Corona* beer at the store, and the bar is not eligible. This hurdle is later resolved by having the operating permit for the bar put under Rosa's name²² - not at all a risk-free enterprise considering the degree of conflict that exists between them.

The issue of tables and chairs Chabelo solves by asking Valentín, owner of El Grullo's largest *tortillería* (*tortilla* shop), who agrees to furnish Chabelo with some 15 tables and accompanying chairs until Chabelo can buy some himself. As for labour control - that is, ensuring that Rosa will remain faithful to the project - matters are complicated. On the one hand, Rosa seems to be very ambitious and willing to work full-time on the project (after all, it was her idea in the first place). Yet Chabelo cannot

fully trust her, especially as she does not accept being subordinate to Chabelo's wheelings and dealings with other women. In fact, Chabelo's friends strongly advise him not to rely fully on Rosa. As one of them put it:

"Chabelo is crazy. He bartered his fertile *ejido* soil for a piece of barren earth. He just did so to please this whore [Rosa] who's already got four children with three different men. He [Chabelo] is letting himself be led by his women. But when she [Rosa] gets fed up with him the business will go to hell."

The relationship between Chabelo and Rosa is inherently a brittle one, and Chabelo cannot control the alliance without a change in his own or Rosa's behaviour. All Chabelo can do is try to calm down Rosa whenever she suspects a new affair - something which Chabelo is not always successful in achieving.

The drawbacks involving Rosa and Mario call for substantial changes in the project. These prove difficult to devise, but finally an unexpected solution is found. In September of 1993, Chabelo's father dies.²³ After the burial, Chabelo launches into heavy drinking for four days. Suffering from a hangover, in the presence of some close friends, Rosa and myself, Chabelo simply declares:

"From now on I want to straighten out my life. My life is in Colima. There I can get a job. There I have my wife. What am I doing here? This is all finished..."

We all try to cool Chabelo down. We recommend he should wait for some days and reconsider his decision, especially in light of the fact that plans for the *centro* are going in the right direction. The next day, though, Chabelo is more determined than ever to give up his life in El Grullo and move to Colima. To add weight to his decision, Chabelo has already spread word that the store is for sale (the inventory, that is). More radically, he decides that plans for the *centro* are over. As regards the urban plot he has exchanged for fertile soil, he will either try to sell it in its entirety or try to partition it in equal parts and put them on the market. Even more drastically, he announces that his relationship with Rosa is over. From then onwards, he will rent or sell his house in El Grullo, move Rosa to a smaller one, and send a little money each month from Colima so that Rosa can take care of their young, recently-born daughter Aidé. Rosa of course protests, but Chabelo seems to be final about his decision:

"Well, you as a woman may want many things. But I don't have any responsibility whatsoever towards you. Are we married,

then? In any case it will hurt because of the girl. I have my life over there. And the arrangement with you was that you would attend my father. And my father isn't here anymore. So it's a pretty clear thing to me!"

In the end, the soup is not eaten as hot as it is served. Rosa moves to El Tuito (near Puerto Vallarta), where Chabelo rents a house and a restaurant for her. Chabelo himself never returns to Colima, but moves between El Grullo and El Tuito. After some months, Chabelo rents out his house in El Grullo and himself takes the small room at the back of his garden as living quarters. Meanwhile, the transaction with Rafael is completed by the end of June, 1994, when the *Procuraduria Agraria* (Bureau of Land Affairs) furnishes Chabelo and some 5,000 other *ejidatarios* from all over Jalisco a title deed. When I leave El Grullo a month later, Chabelo has already sold two partitioned plots from the land on which he originally intended to build the bar.

Conclusion

The crucial question to ask in the foregoing case is: were Chabelo's projects successful? This is tantamount to asking: have Chabelo's projects become obligatory points of passage between the local and global networks they helped build? Did the actors composing the global networks of Chabelo's projects depend or have an interest in the products and services they provided? Was Chabelo able to shape and mobilise a set of local networks (one for each project) *and* control transactions between these and their respective global networks? To answer these questions, let me first summarise the character of the local and global networks put together by Chabelo's projects. What did they look like? Who and what was part of them?

In the case of the store, the global network is of a very heterogeneous character. It is mainly made up of customers, but dissimilar elements such as police ordinances, creditors, or tax forms are very much part of it as well. These elements generate a space and a time frame - a negotiation space - in which Chabelo's project is built. Likewise, the project entails the elaboration of a *local* network made up of softdrinks, labour, beer, distributors, diapers, refrigerators and so on which Chabelo is able to *successfully* manage. Chabelo's shop thus acts as an obligatory point of passage: it orchestrates the local network *and* controls transactions between the local network (softdrinks, beer, etc.) and the global network (consumers, etc.). Chabelo thus profits from the local network in the sense that he achieves some degree of control over global resources: if consumers decide to spend their money at Chabelo's shop, then they have to pass through a wide array of actors held together by Chabelo.

The case of Chabelo's *centro botanero* differs from the shop project in that the bar never becomes an obligatory point of passage (in fact, the project never becomes real because the bar does not materialize). Yet the project gradually builds a global network, i.e. it *contextualizes* a number of elements needed for the venture to become real. Thus permits of all sorts, potential customers, the sugar mill, PROCEDE and so on participate in creating a negotiation space for Chabelo's endeavours. Similarly, Chabelo laboriously constructs a local network, i.e. he *localizes* a number of elements he needs to orchestrate if the project is to materialize. Thus *ejido* councils, a patch of irrigated land, debtors, and so on are carefully associated with one another. The project, however, remains unreal because Chabelo cannot become an obligatory point of passage between these global and local networks: some of the actors involved define their interests and roles differently, and make off on their own - leaving Chabelo empty-handed. Thus Rosa cannot passively give in to Chabelo's womanizing behaviour; Chabelo's kin is not ready to accept the exchange of *ejidal* land for an urban plot; creditors stand in the way, and so on.

Next to the concept of obligatory point of passage, which refers to a projects' ability to regulate exchanges between an inside and an outside, the concept of *translation* describes the process by which a shared space is created where initially there was none. Thus in the case of Chabelo's shop, actors from the global and from the local network can communicate through a set of intermediaries that circulate between them and define their relationships. So, for example, intermediaries such as tax forms, softdrinks, permits, canned food, etc. circulate between Chabelo, clients, distributors, the municipality, the Ministry of Taxes, and so on. The degree of translation, however, is weak: that is, the *collectif* is fragile. *Fiestas*, a nearly bankrupt sugar mill, strong competition by wholesale merchants: these elements withhold clients to purchase all the products Chabelo would like them to. In the case of the bar, however, successful translation is not achieved. This is so because there is an absence of intermediaries circulating between the bar's local and global network.²⁴

While the notions of obligatory point of passage and translation are useful to describe relationships between local and global networks, the concept of *translation regime* is helpful to refer to those general and local rules that impinge on the character of any network (see Chapter Two). In the case of Chabelo's shop, the translation regime is weak. Neither the inside nor the outside of the project can be said to be strongly regulated, and the project itself has not created any rules of its own which can be successfully added to conventions generally followed: Chabelo's shop will not alter the consumption pattern of people living in El Grullo. In the case of Chabelo's intended bar the situation is different. Here the global network is strongly regulated (think of building permits; health insurance; reforms to Article 27 of the Constitution which allow *ejidatarios* to sell

their land) *and* reinforced by local rules and cultural arrangements (e.g. illegal land rental; barter). However, as in the case of the shop, the bar project cannot itself generate internal or local rules or conventions - let alone add these to the general regulatory framework.

Finally, a word on *momentum*. Is it possible for Chabelo to go back and 'undo' what has been constructed through his projects? Do his projects 'determine' or shape future translations? In the case of the bar, transactions have indeed gained momentum in that Chabelo cannot go back to a situation similar to the one he found himself in before the start of the failed project. Land has been exchanged, contracts have been signed, and the urban plot has been partitioned. In the future, Chabelo will need to base his plans on this new configuration.

Let us now summarize the morphology of the networks which Chabelo's projects help construct, and assess whether or not they were viable. The concepts of global and local networks, obligatory points of passage, translation, translation regimes and momentum, as I spelled out in Chapter Two, are useful tools to describe whether or not the *convergence* or degree of integration of networks exist. Thus, the more successful a translation, the stronger a translation regime, and the higher a degree of momentum, the more the constituent actors of a network can be seen as working together in a common enterprise. In Chabelo's case, his two enterprises cannot be conceived as forming part of a convergent network. These projects operate within a *collectif* that is not strongly integrated, that is, not many rules, regulations or cultural arrangements govern interactions within the network. Moreover, translation is weak. Even though the shop acts as obligatory point of passage, the low degree of convergence of the networks in which it is inserted endangers its viability.

The final outcome of Chabelo's projects is that *collectif* made out of houses, buyers, plots, *ejido* councils, sugarcane, shops, pick-ups, permits, sellers, alcohol, or even the Army implodes like a cathode. For once, if even for a fraction, these elements go their own way and deny their preceding relationship with Chabelo or their previous fraternity. Some elements, however, will not left unscathed: they will show the scars of struggle. Divided plots, envious relatives, or disappointed lovers will never be the same again: they carry in them - visibly or invisibly - their fraternity with other epochs, other places, other ideas. But this state of affairs will probably not be a very durable one. The remnants, the bits and pieces of what is no more: they will soon be picked up again by close and distant wills, other entrepreneurs, other *collectifs* which will order or relate them differently.

Notes

1. Owner of the largest supermarket in El Grullo.
2. Apart from his double earnings, Chabelo managed to increase his income by handing out free promotional merchandise such as cigarettes or new products not to stores -as supposed- but to dairy farmers. As a result, dairy farmers filled their 4-litre iron milk containers to the very top, in the knowledge that Chabelo would skim part of it and put it into his own milk containers. Chabelo: "Of course I even added a bit of water to the milk. This way I was getting something like two additional litres per container". According to Chabelo, in time these 'extra' earnings represented quite an important part of his total income.
3. The job left Chabelo with many 'extras': permits to cut the cane were (and are) in very high demand especially at the end of the *zafra* (sugarcane harvest) when farmers whose sugarcane does not fully comply with the glucose content specifications of the sugarmill have to wait until after the wet season (half a year) for their cane to be cut. In these cases, an inspector willing to turn a blind eye (for a fee) is a very welcome factor.
4. Chabelo, though, retained the fringe benefits of being a sugarcane grower: social security and the yearly thirteenth month paid by the sugar mill as dividend.
5. Chabelo and Juana had two other children, but the first one was stillborn and the second died at four months of pneumonia.
6. In addition, Juana received USD 260 from a niece for the rent of the house in Armería; income from the shop was negligible as she only operated it whenever she felt like doing so.
7. Although Chabelo at one point had owned enough capital of his own, he often accused feasting and women for the fact that he now actually had to borrow money himself in order to lend it out again. This worked as follows: Chabelo - who had a credit line at the *Caja Popular* - borrowed at an interest rate of 2,5-3% a month. This he later lent out at an interest rate of 8% a month. In order to have a hold on his customers, Chabelo always made them sign a contract. According to two of his best friends, however, Chabelo himself already owed close to USD 10,000 to different acquaintances apart from the amount he owed the *Caja Popular*.
8. The reason for this was the special status of "La Compañía": it was affiliated to the Union (CTM) and did not charge the 15% IVA (value added tax) to

Union members. A Union membership card, however, could be bought at the supermarket itself for a nominal fee of USD 0,70.

9. According to Chabelo - and corroborated by myself - a conservative guess of daily profits (without discounting rent and electricity, that is) would be some USD 20. To put this in perspective: daily (real) minimum wages in the area were nearly USD 9.

10. Locally, the term *centro botanero* (literally: a snack centre) means a place opened during daytime only, attended by whores, and where one can chat with friends while drinking alcoholic beverages, and consuming simple seafood dishes (which are said to improve potency) with a loud backdrop of sensuous music which often has a sexual connotation and double meaning. The difference with a *centro botanero familiar* is that the latter is "familiar": one *may* take the family along, no whores are present, less emphasis is placed on alcoholic drinks, food is a bit more elaborate and music is less loud, less provocative and often performed by live bands or interpreters.

11. Lucio had a job at the mill, loading bags of sugar on to trucks, at the time that Chabelo was inspector. He climbed all the way to the municipal office because he has always been a member of the PRI and the Union.

12. The owner of the neighbouring plot had previously shown some interest in expanding his car-wash facility.

13. The land was put in his name because he was the only one amongst his siblings who took responsibility for his parents when they were no longer able to care for themselves - even though one sister and one brother lived virtually next door to them!

14. The reason for this "in principle" deal was that, officially, *ejido* land could only be transferred until the owner had an ownership title which, at the time of the deal, was not yet in Chabelo's hands. Furthermore, for tax reasons, the transaction was officially to be recorded as a *permuta* or barter of plots. Notary fees for this type of "in principle" transaction were USD 100 for each of the participants to the transaction. The final fee is a percentage (1%) of the sale sum (thus a total of around USD 600). This fee only concerns Rafael's private plot. For Chabelo's *ejidal* plot a different route has to be trod, as the SRA, the Procuraduría and the sugar mill charge fees for new *ejido* members.

15. According to the president of the Assembly, Rafael had once reached a spoken agreement about the rent for his plot. After an inferior harvest of maize, Rafael had refused to pay the price, arguing that the soil had been 'poisoned' previously by intensive use of pesticides. According to the presi-

dent, the poor harvest had to do with Rafael not attending to the maize properly, and not to the condition of the soil.

16. To give an example: José, who borrowed some USD 1,500 which he needed as a bond to enter the U.S. officially, could not repay him because he did not get the promised job in California. He had even stopped paying interest and, as a result, his debt with Chabelo had already increased to nearly USD 2,700. After several visits to his place, we finally managed to get hold of José in a canteen. Pressed, he answered that he intended to pay Chabelo back by getting a mortgage on his house from the bank. Chabelo was able to check on this through the notary public, but it was evident that the matter would take a long time to be settled.

17. It was generally understood that Mario had always been *loco* (crazy) when he, aged 8, had set fire to the cradle of his younger half-sister who died before her mother could save her.

18. As gossip had it, somebody from within the Army paid a bribe to get Mario out of jail.

19. Chabelo did complain to the police, but since there was no evidence that it was Mario who was sending the notes no further action could be taken.

20. Rafael had to wait to sow anyway because it would take some time before he was officially registered at the sugar mill as a sugarcane producer.

21. This credit was for a period of 6 months at a monthly interest rate of 3%.

22. It was again Lucio who would aid Chabelo to make these changes in the operation permit.

23. From one day to the next, Chabelo's father had decided to refuse food. Rosa insisted on forcing him to accept food, but Chabelo understood his father's wish and let him die. Not many people attended the funeral, and it was very telling for the familial relationship that Chabelo's eldest brother and his wife were not present.

24. This failure however is turned into a methodological convenience: after all, failure tends to reveal processes that are more easily hidden in the case of successful projects (cf. Law and Callon 1992:22).

CHAPTER 6

THE BRITTLE BOND OF BLOOD

Family, business, and a will

It is my first day in El Grullo. I have just bought a bed and a mosquito net at "La Compañía" - the largest (and cheapest) store in town. Once outside, I realize that I need a cord to attach the net to the walls. Not wanting to enter the large (and busy) store once again, I ask the first passer-by where I might find the item.

- "Over there, at Don Manuel's", is the answer.

"Over there" turns out to be a strategically located store on one of the corners of El Grullo's main Plaza. The shop is of considerable size by local standards, and seems to specialize in just about everything. In one big room of some ten-by-ten meters a wide array of items is on display: from chilies to papayas to brooms and pet food. Fortunately, there is also a small corner with ropes and cords coming in all colours, materials, and prices. While scanning the inventory, a man in his late fifties who seems to be the owner of the store carefully approaches me. Shyly, he mutters some English words which probably stand for "What do you want?" When I answer in fluent Spanish, the shy expression on his face vanishes. Seizing my arm, he cordially invites me to sit down and drink a softdrink. He introduces himself as David and, in a rather blunt way, asks what I am doing there, since El Grullo is not at all a tourist place. I explain: I am a Dutch sociologist, carrying out fieldwork on small-scale enterprises. His face brightens up as he exclaims:

- "So you're a professional, like me! That's great! It must have been God's will to send such a prepared person to this place! I know that we will have a lot to say to each other in the time that you will stay here!"

- "You bet we will", I remember thinking.

Indeed, in the two years to come David and his wife Chela became part of my daily life. I would walk into their shop nearly each time I went into town. In the beginning, we would chew over a range of topics that interested David: geography, Mexican literature or - David was a religious zealot - discuss issues of Faith or 'forbidden' books about the death of Pope John Paul I. In time, David and Chela involved me and my wife more and more in their lives. Before I knew it, I was already immersed in the intricacies of family strife, invited to participate in national religious gatherings, or to give counsel on future business plans.¹ In the process, while 'hanging around' the store I was introduced to most of their regular customers. With some of these - especially El Grullo's elite - they had a

good relationship as Chela was the 'poor branch' of one of the three most influential families (the Zepeda's) of El Grullo and David had an engineering degree (which gave him much status). Frequent contact with them and with their godfather Father Carlos - the local ecclesiastical head - certainly taught me to see El Grullo's society from a different perspective.

Genealogy of a project

La Tapatía - or "The store of Don Manuel", as the shop was commonly referred to - had been a fruitful business, competing with *La Azteca* and the shops of M. Negrete and R. Méndez for the virtue of being the largest store in town.² *La Tapatía* flourished even more when, in the early 1970's, Tarcisio Jiménez (alias *El Mandamás* or "the boss") took over a neighbouring store (*La Compañía*) from his father-in-law Primo Pérez, turning it into the largest store in the region.³ In the twilight zone between cooperation and competition, Manuel Zepeda (Chela's father) increased his business by attracting extra-local customers who came from as far away as San Gabriel or Autlán to shop at *La Compañía*. At its peak - in the late 1970's - Manuel Zepeda employed five workers at the store (three to take care of fresh fruit and vegetables and two in charge of groceries), and two more employees at a canteen owned by him opposite the store, on a corner of the old municipal market. Manuel's store and his canteen were traditional meeting points for Grullenses - the canteen being the preferred spot for males; the store, a much appreciated site for women. This situation changed in 1979 when permits were required to operate a canteen. Don Manuel could not get hold of one, and so the canteen closed. One year later, the municipal market was relocated to make place for a pompous plaza worthy of a much larger town. With the market gone, the number of customers visiting the store also dwindled. Shortly thereafter Don Manuel became seriously ill, to the point where he could not attend the store any more. The store thus had to be taken over by one of his three children: José, Conchita or Chela.

José, the eldest, declined the favour and started his own enterprise in fruits and vegetables - a line of business he knew well, as he always travelled to Guadalajara's Central Market in the company of his father. José first opened three stalls at the new, relocated market (two for the sale of fresh produce, one for the sale of candies) and build a huge, refrigerated storage room with which he initiated a retail business in fresh vegetables and fruit (and, later, groceries). By 1992, José (and, increasingly, six of his eight sons who were all bachelors between 20 and 30) mobilized some 40 tons of fresh produce a week with a net monthly profit of around USD 8,500 - making him the largest wholesale merchant of fresh produce in the region. Since José bought wholesale from pro-

ducers on the coast of Jalisco, on a number of products he could compete with prices offered at Guadalajara's Central Market.

Conchita, for her part, was unable to take charge of the business since she was slightly mentally retarded. As for Chela, who was at that time living with David in Colima, the prospect of taking over the family's enterprise was not that attractive, especially in light of the fact that José had taken with him the most profitable part of the business. As a consequence Gaby - Conchita's daughter and Don Manuel's favourite granddaughter - ran the store under the supervision of her uncle José.

When Manuel Zepeda died⁴, he left behind him a will. In it, he stated that the store, the house in which it was located, as well as the plot on which the house was build should be split among his three children. At first, José, Chela and Conchita considered the possibility of selling. For emotional reasons, however, the thought was dropped and Gaby was allowed to run the business fully. The understanding was that all three children would have equal shares in the profits, with Gaby taking her mother's share and the burden of looking after her. Also, a document was drafted and signed before a notary public shortly after Manuel Zepeda's death. In it, it was agreed that no changes would be made to the property by any one of the siblings without the explicit consent of the others. Moreover, it was accorded that Conchita could continue to live in the parental home behind the shop.

As it turned out, Gaby was not able to manage the store properly. For one thing Gaby (by that time 21 years old) seemed to lack a crucial asset of merchants: the ability to get along well with customers. The clientele Don Manuel had carefully built up during the years thus slowly waned. In addition, her lack of expertise brought her into financial trouble, to the point where she was not able to repay the merchandise she bought on credit with her uncle José and others. José started to complain openly, and one of his sons (Gil) demanded that the shop be turned over to him. José however was of the opinion that turning the enterprise into a profitable one once more was an uphill battle, and dissuaded his son from taking over. As an alternative, José suggested selling the store and the real estate, but the plan was opposed by Chela on moral grounds. José had ears for his sister's arguments, but insisted that neither he nor his sons would invest their time or money in saving an enterprise that seemed to be inevitably doomed to failure. As the only way out, he suggested that Chela and David take charge of the shop.

The suggestion placed Chela and her husband David before a dilemma: should they stay in Colima and neglect Chela's endowment of part of the store? Or should they move to El Grullo to rescue what was left of it? The difficult decision was somewhat eased by David and Chela's prevailing circumstances. At that time, early in 1989, David had a job of considerable importance at the Ministry of Agriculture and Water

Resources (SARH) in Colima, some 150km from El Grullo. However, the economic policies of the time did not augur well for SARH personnel. As a consequence of the neo-liberal policy of the newly inaugurated Salinas Administration, from the beginning of that year it was made known to all SARH personnel that one of its traditional mandates - extension to farmers - would be partially privatized.⁵ Also, a restructuring of the Ministry at all levels was under way. This meant that the stability of David's career was under pressure, as he and others within the Ministry forecast the imminent discharge of at least 40 percent of personnel. David understood that the only way to secure his position would be to play a political game he had never liked:

"Within SARH the only way to advance or defend your interests is by always saying 'yes' to one's superiors, or by stealing. It is a place where a secretary can earn more than an engineer because she's dating the boss."

A man of solid moral beliefs, David felt that other ways had to be trod. In his struggle to retain his position, he mobilized all possible means⁶ - without success. From David's perspective, then, the prospect of taking over the store was not such a bad idea, especially as he saw that fellow engineers were already being fired - ending up selling goods at Colima's *tianguis*. Moreover, David had always had a passion for trade. He possessed crucial virtues such as eloquence (as a student he had earned some money as a radio broadcaster) and persuasiveness, and had already shown his competence in the field when he worked for a goat-skin merchant from Guadalajara in his early twenties - to the point that the merchant offered him to become his business associate after David had succeeded in controlling the goat-skin trade in the South of Jalisco and the rim of Lake Chapala.⁷ In addition, David knew El Grullo well: he had already spend a year there as a student while doing his social service in 1959, and was well integrated into local society through his wife's kin and networks.

For Chela the situation was the reverse of David's. A frail but resolute woman with a clear talent for commerce, she had never acquiesced to David's conviction that the hearth was the proper place for a wife. This she had learned from her father, who took her from school at age eleven and made her attend his store - giving her full responsibility for a number of tasks. During the twenty years she had been living in Colima with David, Chela often fought for her autonomy, and indeed was able to undertake a number of ventures - among them taking a secondary school degree as well as a course in business administration. By the time José asked her to take over the nearly bankrupt shop, Chela was selling home-made pies and pineapple cakes on assignment. This was a profitable

business, as she was earning around USD 1,300 a month (a little more than her husband) on the basis of a daily turnover of 60 to 70 pies. For her, the choice to move back to El Grullo was a hard one, especially as she also felt that the educational future of their only daughter Mimí (then aged 9) would not be enhanced by the family's resettlement. In addition, managing the store in El Grullo meant they would have to trade their new, comfortable, USD 100,000 home in well-liked Colima for an old *adobe* building without modern amenities in provincial El Grullo.

Global network of the project

After lengthy discussions, by July 1989 Chela and David had taken the decision to move to El Grullo to run the store. Some negotiations preceded the move, such as procuring that David was discharged from SARH in order to obtain a monthly pension.⁸ In order not to burn their boat, the house in Colima was not sold but left vacant in case they should decide to retrace their steps.

At first the task of David and Chela seemed to be quite uncomplicated. The store existed within a relatively stable *global network* (made up of Gaby and especially José, clients, but also of creditors and suppliers with whom agreements had been made earlier). This created a space, a time, and a set of resources - what Callon and Law (1989) call a *negotiation space* - within which David and Chela were allowed to develop their project, that is, elaborate a *local network* that would enable them to make the store flourish once more.

To set up the local network, a first and foremost requirement was knowledge to operate the store. Of course, Chela had been brought up attending clients, and to an extent knew what it took to do so. On the other hand, product prices changed constantly due to high inflation, and this did not facilitate operations. While David lacked the interest to keep track of price fluctuations, Chela was often too busy buying supplies and doing the administration to be constantly on top of the changes. Fortunately, along with the store David and Chela had taken over Nena - a clerk who had worked at the store for the last nine years. Nena was very competent in translating supply costs into client prices, and had the ability to calculate quickly - in her head - the amount customers were due for the diverse items they had bought. These virtues, then, made Nena essential in the operation of the store. At the beginning though - due to the outstanding debts - Nena proved to be a burden for the new managers since the financial room to pay her salary and official benefits (in total some USD 400 a month) could hardly be found. Besides, David had developed a deep mistrust towards Nena from the time he used to visit his father-in-law, and accused her (though never directly) of charging clients differently: especially Nena's friends and relatives were suspected

of obtaining 'bargains' whenever they shopped at the store. Nevertheless, both David and Chela felt that Nena was indispensable. As David put it: "Nena is a necessary evil". This situation had implications for the organization of the store: Nena was never allowed to touch money or the cash register, hence either Chela or David had to be constantly present at the register to receive customers' money and give them their change.⁹ Moreover, lack of trust meant Nena could not run the store on her own, and each time David and Chela were away doing errands, buying supplies or attending a school meeting then either the store had to be closed or a suitable person to take care of the register had to be found. Nena, in turn, had to be monitored closely so that her skills outweighed her pricing policy. As to José and other distributors: they were hungry to continue supplying the store, but only if David and Chela honoured their financial obligations towards them.

At first, then, the negotiation space was quite limited. What Chela and David had actually taken over were a full-salaried worker and debts - some USD 3,000 with José and an additional USD 2,700 with other creditors. Thus the new managers had to adopt a step-by-step approach: their needs, Nena's salary, and a steady stream of supplies had to be guaranteed. As to the first requirement, this meant tightening the belt somewhat. David:

"We went through some rough times, and had to postpone holidays or visits to friends. We couldn't even allow ourselves to buy a television or a radio for the house here in El Grullo, imagine! It was just like having shoes size twenty-eight and buying new ones size twenty-seven-and-a-half..."

After ten months of operations, and through tight management and accountancy by Chela, all debts were cancelled. However, just as the creation of David and Chela's project went ahead, complications surfaced with the global network on which the project depended. For example Gaby, who had been temporarily left without an income after the take-over¹⁰, kept taking groceries from the store at will. Chela would not complain about this, as Gaby was her favourite niece and godchild. Thus some first frictions unfolded between David and Chela on the issue of Gaby. David:

"Chela and I had the first serious argument of our lives. At first, she kept on letting Gaby take groceries for free. So I told her [Chela] that I would take care of the cash register and that nobody but me would touch it. This was difficult because Chela has got a lot of relatives here... But I argued that in the eyes of God the family was just Chela, Mimí, and me. Period. And nobody else."

After some quarrelling Gaby promised to pay for all errands in future. However, in exchange she put forward a demand. The demand was linked to her wedding present: at marriage, Gaby's father-in-law (owner of one of El Grullo's three drinking water bottlers) promised to give her a monthly supply of 1,000, 20-litre bottles of drinking water - the profit of which she could keep herself. Since Gaby had no place of her own to put the bottles on sale, she suggested that David and Chela make some room to display the bottles in the store. Gaby was backed in her demand by José, who accused Chela of being heartless towards her niece.¹¹ Eventually a metal rack fitting 20 bottles of 20 litres each was installed in the store. This proved to be an enormous hindrance: although the footprint of the structure was relatively small, the structure of the rack nevertheless occupied nearly a tenth of the store's space and hid a number of products from view. Worse, the rack required enough room (about a meter) in front of it for the bottles to be brought in and taken out. In addition, Gaby did not pay any commission to Chela on water sold - though she did so at other outlets. Since no profit could be made on the water by David and Chela (the price for bottled water was fixed and thus illegal to sell above the maximum of USD 1 Gaby was already charging), the episode of the rack set the stage for continuous strife between Gaby, Chela and, especially, David - who sold the water only with great reluctance (at a rate of 10 to 20 bottles a day), and who never even touched the 20-litre bottles¹². In a sense, then, the water rack was a materialization of family relations: through it, Gaby and José were assured of their continuous presence in the store.

These initial conflicts were exacerbated when it turned out that José - the main supplier of fresh produce and groceries - did not sell the merchandise at cost, but at retail price. Thus a 20kg box of mangoes which José would buy wholesale for USD 20 each was passed on to Chela for USD 33. This meant that Chela had to bargain on most products on each and every delivery by her brother, which was seen to be morally illegitimate. Chela:

"José goes over the top by charging us the same as his own clients. Really, if you take into account his turnover then it wouldn't hurt him to sell to us at the same price he's paying. So he's not helping us. Of course, I'm grateful that he did not sell the shop and let us take over. But actually it's my brother who is doing himself a favour because we are repaying Gaby's debt. In fact he sees us as a franchise of his own business."

The consequences of Chela and David's failure to establish a satisfactory relationship with José and Gaby made themselves felt and limited the room for manoeuvre at their disposal to develop the store in the way they wished.

What strategies did David and Chela need to unfold in order to develop their project in face of these constraints? As is apparent from the foregoing, there existed a tension in the relationship between the store and its global network. The most serious of these developed after David and Chela managed to pull the store out of the red. From that point onwards, both Gaby and José claimed their share of profits, as stated in the signed inheritance agreement. The agreement was very complicated, though, for "profits" were understood to be only those revenues made on the sale of products supplied by José (most notably fruits, vegetables, and groceries). Of the profits on these products, 75% belong to José, Chela and Gaby (in representation of her mother) as part of the inheritance, and 25% belonged to Chela and David for the running of the store. On profits made on products other than those supplied by José, the agreement was that Chela and David could keep them all.¹³

The agreement, although initially accepted by all parties, in time became more and more contested by David and Chela. After all, the latter argued, Gaby was not taking care of her mother any more (Conchita lived at Chela and David's, who also paid her expenses), and José was already making a profit on the store through his pricing policy. It is here that the second stage in the elaboration of Chela and David's project started. Wanting to break open the agreement, Chela and David get involved in a series of considerations about what strategy or combination of strategies can best be deployed. These considerations are in turn shaped by Chela's and David's ambitions - both in terms of the store and in terms of the level of comfort they were used to while living in Colima. In the case of the shop, this entails a total remodelling of it; in the case of comfort it entails making improvements to the *adobe* (mud bricks) house. As to the development of their negotiation space vis-à-vis the global network, a twofold strategy was pursued. The first involved becoming less accountable to José - which amounted to looking for alternative supply channels. The second strategy concerned their relation with Gaby, whose claims they sought to keep at bay through a renegotiation of the inheritance agreement. Let us now turn to how these strategies evolved in practice.

The idea to remodel the shop and make improvements to the house was borne out of a mix of David's religious beliefs and a notion of 'progress' as something which it is one's responsibility to achieve. According to David - and in this he was more-or-less followed by Chela - God had created Man as a naked creature without television, cars, space shuttles and the like:

"So He made Man to be in charge of the Earth, to dominate it and to make it a livable place... Man is not perfect, but he can make progress... Progress is such a beautiful thing!"

The idea to remodel the store was thus first of all based on a notion of progress. For Chela, here 'progress' means increasing the store's turnover. This can be achieved by offering something that clients were more and more getting used to: self-service.¹⁴ This however called for relatively high investments such as changes in the physical structure of the store, a wall with refrigerators with glass doors, new shelves, automatic weighing scales and a computerized cash register.

As to the home improvements: for the otherwise materialistically oriented David, moving into the *adobe* house in El Grullo was a giant leap backwards. So when the store made profit for the first time, plans to improve the house were high on the agenda. This involved replacing the old electric circuitry, building a new kitchen, and adding two rooms on the roof. The latter necessitated major changes in the foundation of the house, since the *adobe* construction would never support the weight.

As concerns David and Chela's strategy to become less dependent on José, a number of obstacles had to be removed. For one thing, switching to alternative supply channels was difficult, because even official distributors could not match José's prices due to the latter's magnitude of orders. The alternative entailed specializing in products José could not provide. To the extent that David and Chela would succeed in enrolling new suppliers, clients interested in the new products had to be sought. Some of these came 'naturally', that is, they shopped at the store because they had always done so, or because of their longstanding friendship with David and/or Chela. If the project wished to increase its feasibility, however, then more clients needed to be convinced to buy at the store in order to increase turnover substantially.

The situation with Gaby, in turn, was difficult but not wholly irresolvable. Chela and David wished to break open the inheritance agreement and renegotiate Gaby's claim and - or so both supposed - perhaps her demands could be dodged through some other form of material reward. In any event, if Chela and David wished to increase their negotiation space then Gaby had to be persuaded to renegotiate the agreement.

Next to the above actors who needed to be enrolled, other potential allies included local and regional authorities, the chamber of commerce, the tax inspector, the accountant, and so on. These had already been put in place long ago - in the sense that no extra effort was needed to obtain their support. With others, however, support had to be (re)negotiated.

Resistances to the project

To develop their project, David and Chela thus needed to enrol a number of actors from the global network, and to coordinate the activities of the

local network. As we saw above, the negotiation space to developing a local network was limited because the project was in constant tension with actors from the global network. Nevertheless, within their limited negotiation space David and Chela continued with their work of localizing and contextualizing. As stated before, this entailed the mobilization of heterogeneous actors such as José and Gaby, clients, alternative suppliers, an *adobe* house, the infrastructure of the store, and Nena. In order for the project to become feasible these actors needed to be locked into place, that is, they had to function according to the specific roles that were attributed to them. Thus suppliers had to be willing to sell their products at low cost; the house had to meet modern expectations of comfort; the store had to be updated to attract more customers; Nena's skills had to be retained (yet her moves be checked carefully); and José and Gaby's demands had to be kept at bay or renegotiated. The identity attributed to these heterogeneous actors, however, so far remained unreal. Their identity thus needed to be reconstructed or remoulded so that they performed the roles assigned to them. This, of course, entailed breaking a series of resistances to which we now turn.

The most important resistance that needed to be overcome involved José and Gaby's claims. To this end, a range of suppliers willing to substitute José needed to be enrolled in the project. The most obvious replacement of José was Tarcisio Jiménez, owner of *La Compañía*. Tarcisio was approached, and it turned out that he was willing to provide groceries and candies (which sold best of all) at competitive prices. This move enabled David and Chela to become less reliant on José. However, after a few months David and Tarcisio broke off their deal after a row,¹⁵ and José was asked to supply once again. This José did, but not without first making it very clear that the move had damaged the trust that he supposed existed between himself, his sister, and David. The incident notwithstanding, David and Chela continued their search for alternative suppliers. However, large suppliers able to undercut José's prices were not to be found in the region, and consequently it was mainly petty traders who provided David and Chela with a variety of goods such as flower arrangements for the Day of the Dead, caffeine-free shrub coffee, raw sugar, bread and *bizcochos* (sweet bread), or lichens from Mazamitla for the Christmas cradle. Also, on his frequent trips to visit relatives and friends in Guadalajara and Colima, David brought back with him all sorts of goods ranging from brooms to eggnog and dry, salty cheese. Indeed, David and Chela's mind was always set on identifying new suppliers of anything that could be sold at the store.

Next to suppliers, an essential resistance to the feasibility of the project were clients. Clearly, their resistance to shop at the store was directly related to the presence of the neighbouring *La Compañía* (which, with the exception of fresh produce, offered lower prices on most of the

goods that David and Chela also sold) as well as other nearby stores such as José's and the local co-operative mart. Although David and Chela's strategic location ensured a flow of casual patrons, if business was to improve then the flow had to be increased. This was a complicated matter that required some keen strategizing in terms of product supply,¹⁶ and which was related to diverse, resisting actors such as the agricultural cycle, migrants' behaviour, or local and regional *fiestas* which often resisted (though sometimes aided) the advancement of Chela and David's project. Chela:

"During the *fiestas* people will eat only *tortillas*, beans and chillies at home, and then go and spend it all on drinking and dancing. That hurts us because we have our constant costs with Nena. But then comes Christmas and all is better because families come home from the United States and their relatives here buy what they usually don't to treat them kindly and let them see that they are doing well."

Another obstacle opposing the project was the brittle relationship with their employee, Nena. Nena, as we saw above, was a crucial element for the running of the store. This Nena was well aware of, and exploited this knowledge to claim full-time employment - even though she was not in fact always needed.¹⁷ Inflexibility in the organization of paid labour, then, restricted the room for manoeuvre needed to adapt to fluctuations in consumer demand.

The physical improvements to the store and house proved to be large hurdles as well. Improvements, let us recall, called for changes in the inheritance agreement. José however was strongly opposed to any alteration to the agreement; that is, he agreed with the improvements, but insisted that the added value of the property should also be passed on to Gaby and him. David and Chela thus felt that every *peso* invested in the house and the store would be a waste, since it would also belong to Chela's kin, even though they would be making the investment.

Mobilization

To overcome resistances in both the global and the local network, David and Chela had to mobilize a number of resources. As a first move, David questioned Gaby's claim to a share in the profits by moving back to Colima, arguing that he was tired of having to split earnings with her.¹⁸ While doing so, David warned Chela that he would not come back to El Grullo until the issue had been settled in their favour. Not wanting to lose her husband, Chela offered Gaby a deal: she would set up a small *cremería* (cheese shop) for her on part of the store's premises, in

exchange for her share of the store's profit. This way, Chela argued, Gaby could run her own business in the future. Not without a fight, Gaby finally gave in and went along with the deal. Nevertheless Chela put some moral pressure on Gaby, letting her know that she would have to contribute in some way for her mother's sustenance. In the end, it was agreed that Gaby would pay a monthly rent of USD 100 for the cheese shop to David and Chela, who would in turn open a new bank account, deposit the money in it, and name Conchita (Gaby's mother) beneficiary. José and, eventually, David sanctioned the deal and by the end of 1992 the store was remodelled to harbour Gaby's cheese shop (a small room of 2.5 by 3 meters with its own private entrance).¹⁹

Renegotiating the inheritance agreement was a costly business for David and Chela. The final bill of remodelling the store and buying adequate equipment for Gaby added up to a lofty USD 5,500 (plus USD 5,000 Gaby's husband also invested in it), not including the store space lost to the cheese shop. From an financial point of view, however, the investment could pay itself off in due time, as part of the store's profits would not longer accrue to Gaby. In a sense, then, the global network had been (partially) reshaped, and David and Chela's could now enjoy more room for manoeuvre to develop their own, local network.

Though successful in their negotiation with Gaby, Chela and David never managed to reach a new agreement with José. Improvements to both the house and thus the shop could not be realized. As a consequence, David and Chela once again intensified their search for alternative suppliers, to the point that by the end of 1992 most groceries (not fresh produce) were purchased with official distributors and no longer with José. This clearly increased the exploitation costs of the store, but it was felt by both David and Chela that their independence was worth the price.²⁰ To narrow down the gap between prices offered by José and those offered by official distributors, Chela opened an account at the *Caja Popular* in which she deposited around USD 65 a week. The idea was that, with these savings, a pick-up truck of around USD 5,000 could be bought within half a year. This would enable Chela and David to travel to Guadalajara and stock the shop for a lower price.

Apart from issues of cost, switching to alternative suppliers had additional disadvantages and a host of new problems surfaced. One of them concerned storage space. Whereas Chela and David could always buy whatever quantity of produce they wished from José, with alternative suppliers this was not always the case. For instance, when buying squash seeds from farmers directly, often a large number of 30kg sacks had to be bought to obtain a reasonable price. The seeds would sell well (people bought up to 4-5kg at a time to make *pipián* (a local dish from Yucatán) but until all was sold sacks of squash seed or other agricultural products filled the house and obstructed the main pathway in the store - much to the annoyance of David, Chela, Nena, and customers.

But other, puzzling problems also emerged. For example, Nestlé's distributor would only deliver 'Nido' powdered milk (which was preferred by consumers) if David and Chela also acquired Nestlé's 'Maggi' sauce (which was not liked by consumers, who much preferred 'Knorr'). Since many distributors only sold 'packages' of products, sometimes difficult decisions had to be made. Thus, as with the example of 'Nido', consumers would be satisfied, but only at the expense of shelf space for 'Maggi' and the dissatisfaction of clients wishing to buy 'Knorr'.²¹ Chela and David solved these problems, for example, by obtaining 'Knorr' sauce with José - who, because of the scale and scope of his enterprise could not be manipulated as easily by official distributors and carried all possible sauce brands. This however went against their quest for independence from José, and made Chela and David acutely aware of their impotence vis-à-vis José and factory distributors. Indeed, it is clear that, by not being able to shape their global network through a renegotiation of the inheritance agreement, David and Chela were compelled to make a huge detour which in fact proved to be decisive for the configuration of their project.

The gradual turn away from José and in favour of new suppliers not only induced the organizational problems referred to above. It also called for an increase in the complexity of administrative tasks and for a more finely-tuned orchestration of relations with the Ministry of Taxes, regulatory agencies, and local political factions. Before switching to new distributors, for example, administrative tasks such as accountancy were relatively straightforward (although complicated because of profit-sharing) because José supplied with closed books.²² Thus it was enough for Chela to keep (internal) track of purchases, while towards the Ministry of Taxes she only needed to account for the relatively few invoices of official distributors (softdrinks, beer, bread, cooking oil) which could easily be covered through the sale of products for which no invoice was issued. With the change of supply channels, however, this situation was altered sharply. In general, official distributors were obliged to deliver a standardized, numbered tax invoice for products sold. As the number of official invoices grew relative to the amount of unaccountable products, massaging profit figures became increasingly complicated. Consequently, some form of sales registration was needed at the store so that - for tax reasons - purchases could be matched with sales. The whole operation in turn required careful 'guesstimates' of sales (clients never required receipts for products bought) for different categories of products, and demanded the services of an accountant. As an effect of their decision to become less dependent on José, David and Chela's room for manoeuvre vis-à-vis other actors from their global network (i.e. the Ministry of Taxes) diminished.

A related problem of not buying their assortment with José involved the sale of products from the so-called *canasta básica* (basic needs basket). By law, prices for products such as sugar, cooking oil, sardines, powdered milk, rice, toilet paper and the like had an official ceiling, which was enforced and checked by PROFECO²³. Suppliers, however, already provided most of these (subsidized) products above these ceiling prices, and consumers had to pay an even higher price. By doing this David and Chela risked the imposition of a hefty fine or the closure of the establishment by PROFECO: it only took one single customer's complaint for these measures to be taken. At the time that most of the inventory was bought at José's, the whole problem was non-existent: José simply placed his orders directly at the factory and thus was not hindered by intermediaries who boosted prices. Given the new situation, David and Chela were forced to seek a solution to this problem. An obvious way out was to 'hide' basic needs products from clients' view, thus preventing high demand for them. But then it was mandatory (by law) that basic need products be openly displayed. Inspectors - who dropped by at least once a month - could be 'bribed' if they noticed the products were sold at too high a price or were hidden from view. Yet, bribing was not always possible, and encountering an 'inflexible' inspector could prove deleterious for business. It was thus much easier to reach an 'overall' agreement with the municipality and be "shielded" against sudden audits from the Ministry of Taxes or the idiosyncrasies of individual PROFECO inspectors. And these could - to a degree - be kept at bay through the mobilization of political allies and good relations with the municipality.

On this issue, however, Chela's and David's strategies diverged. For example, during the 1992 municipal election campaign David strongly backed PAN's (a right-of-the-centre political party) candidate (Conchita Corona) by giving a number of speeches on her behalf. In particular, David backed Conchita's plan to eradicate all street vendors from El Grullo's *Plaza*.²⁴ These peddlers David (like Conchita) blamed for providing unfair competition to established businesses like his and Chela's. After all, the argument ran, ambulant sellers did not pay official taxes, did not employ extra-familiar labour, and had little overhead costs. Hence their products were cheaper. Moreover, peddlers gave El Grullo's main plaza the appearance of an informal *tianguis* - which conflicted with David's ideas about proper decor and 'progress'. Chela - somewhat more opportunistic - opposed the plan to remove ambulant sellers from the *Jardín*, and argued that all vendors, taco carts and others that carried out their businesses on the sidewalk next to their store attracted many customers and were thus to their benefit. According to Chela, to chase peddlers away was tantamount to slaughtering the hen that laid the golden eggs. Hence Chela (who by the way had always voted PAN)

openly supported PRI, and sought its support, for example, by offering PRI to paint its political slogan on the outside wall of the store.²⁵

From the above, we can see that David and Chela had to mobilize a set of elements in order to overcome resistances to their project. This way, their local network gradually took shape. One crucial prevailing factor, though, concerned clients: without increasing numbers of them the project would be unfeasible. Not unlike the fronts involving suppliers, labour, José, Gaby, regulations or political alliances, a variety of strategies and resources were brought to bear on clients in order to induce them to buy items from the store's line of articles. Here, the most noticeable stratagem involved flexible opening times. Thus, when business was low, the shop would close doors for a larger part of the afternoon, then reopen until late at night. This had to do with the store's strategic location next to the place where taco vendors installed their stalls at night. As a consequence, vendors themselves but also their clients used to buy anything from softdrinks to napkins and cigarettes at David and Chela's. On other occasions, such as during the Christmas and *fiesta* seasons, the store would open its gates early in the morning (7am), only to close at midnight.²⁶

Next to flexible opening times David and Chela attracted their clientele through personalized attention: charming remarks, passing on gossip, or doing little extras like helping the elderly to carry their goods were conscious ruses to seek clients' preference. However, although both David and Chela knew the effect of these tactics, they nevertheless were extremely selective in their treatment of clients. Thus for example David showed a strong predilection for clients with whom he had extra-business relations,²⁷ and tried to keep his dealings with some other categories of customers to a bare minimum.²⁸ To keep the latter at bay he treated them harshly - for instance by not noticing their presence or by using derogatory language to address them. In this, David often collided with Chela, who took the position that "business is business" and that therefore one should not be too picky with clients. Although more pragmatic, Chela would also in effect discourage some of her customers through her moralizing tendencies.²⁹

Apart from opening times and relations with clients, the most apparent strategy for enrolling customers involved seducing them by offering merchandise below ongoing prices, for example before Christmas when the store's entrance was decorated with strings of little flickering lights that were sold under cost price. While deliberately losing on these types of products, the strategy was often deployed as a means to increase the volume of sales. As Chela put it:

"Once in a while it's good to hurt oneself a little. I go to the market, compare prices, and then offer lower ones. People do

notice these things. News is passed on and then clients come to me. It is much better to sell large quantities cheaply, than to sell only a little for higher prices."

On other occasions, information about a specific product was adapted to suit customers' desire. Thus local fresh cheese was sometimes advertised as coming from Tapalpa - a place known for the high quality of its dairy products - or eggnog from Guadalajara was claimed to be 'home made' by nuns at Zapotlanejo's convent. Of course, buyers end up paying a price to satisfy their lust for these genuine products.

But lowering prices and providing false product information were not the only means to captivate patrons. The way in which products were sold was equally important. So, for example, many (known) shoppers bought on credit. This was not a practice David or Chela themselves advocated since - apart from the difficulty in recuperating the money - selling on credit entailed administrative complications.³⁰ Nonetheless it was a practice they had to cope with for the simple reason that buyers would otherwise turn to other grocery stores. Similar to selling on credit was the system of *apartado*: for a small down payment, a specific product (e.g. Levi jeans) would be set aside for a customer until he or she had enough cash to finish paying.³¹

Of a different kind altogether was the resale of products on commission. For example, trustworthy peddlers would come to the store and take with them an array of products such as brooms, *petates* (straw mattress) or candy, and sell these on the sidewalk (either at the *plaza* or at the *alameda*) or from house to house. These ambulant sellers generally sold at store's prices, and were given 10% of sales upon return. Interestingly, Chela and David themselves also marketed a variety of products on commission, such as illegally imported microwave ovens from the US, and jeans or clothes which were sold under the counter. In case these products did not sell then jackpots of around USD 2 per ticket were organized - the number of tickets transacted depending on the price of the product.

To a certain extent, these practices were effective means to increase the store's clientele. Moreover, in part they concealed turnover from José's view, thus increasing the autonomy of David and Chela's project - that is, their negotiation space vis-à-vis the global network. However, when put into perspective, the store's success was relative. Average (net) weekly profits surpassed USD 200, but after sharing benefits with José not more than a monthly USD 700 was left over. This figure was about a third of what David and Chela had been earning in Colima, and clearly did not meet their expectations.

Transformation of the project

It was at this point that the project entered a new phase. Given the room to negotiate with their global network, David and Chela had tried nearly all means at their disposition to make the store more successful. All sorts of resources - human and nonhuman - had been mobilized to this end, but eventually it became clear that the functioning of their local network was incompatible with the requirements of the global one (and, especially, José's demands).

David and Chela considered various solutions to their predicament. Continuing on the same line - that is, persisting in their strategy of shaping their project within the boundaries set forth by its global network - was not a prospect David and Chela coveted much. Indeed, the limit of what could be achieved through their approach was in sight, and both were aware that through their persistent, painstaking efforts maybe an additional monthly USD 100-200 could be earned. And this was not seen as a substantial improvement.

A second solution that was considered involved expeditions into new product areas, or the purchase of the desired pick-up truck³². This led to a series of calculations, especially on David's side. In principle, David had the means to invest in the store. He owned a two-bedroom house in Guadalajara for which he received a monthly rent of USD 220. So far, he had used this income for covering his passenger car's expenses and for paying his daughter's school fees. What was left he deposited in his own bank account, in which he had savings of around USD 6,700. In addition, David could potentially mobilize part of the money he had obtained in 1989 from SARH as *liquidación*³³ (a remuneration paid to laid-offs). Also - if needed - the house in Colima could be sold for cash.³⁴ Although theoretically feasible, this second solution - investing - was rejected. The reason for this was that David feared investing his own money in the project, as the relationship between him and Chela had been deteriorating since the takeover of the shop - to the point at which both recognized their marriage was, after 25 years, not that stable any more. In David's words:

"I guess it has to do with this store business and the sacrifices we've been through. We've been working in El Grullo for nearly five years now. And where are the material rewards? Gerardo, I'm fed up with this thing! I'm an engineer, and look at the type of job I'm doing. How can one expect a good marriage under these circumstances?"

In light of this - and considering the fact that the store was on Chela's and José's name - David was not very inclined to invest. Moreover, new investments would require David and Chela to have influence over

suppliers of new products (i.e. buying on good terms), or the contacts necessary to stock for lower prices at Guadalajara's *Central de Abastos* (wholesale market). As things stood Chela and David had insufficient control over the elements involved, thus making these investments unrealistic.

A final solution that was pursued involved the modernization of the store. As we have seen above, this required making substantial changes to the physical infrastructure of the building - something José was adamantly against. No matter how often David and Chela tried to persuade him to accept the purported changes, José's line on the issue was that the real estate (the plot on which the store was located) was worth many times the value of the business. Indeed, José was increasingly of the opinion that it was preferable to sell the property and divide the money (the plot on which the store was built was valued at over USD 75,000 by the bank - which was a low estimate considering its strategic location) than to obtain a monthly rent of around USD 250 - a negligible amount if compared with the profit of his own wholesale business. Thus José repeatedly tried to persuade Chela with his calculative, economically rational argument that selling out would not be the same as betraying the memory of their parents.

No matter what David and Chela did, there seemed to be no way out of the impasse. This in turn led to a complete rethinking of the project. When it became clear that the store could not construct and control its global network, Chela (but especially David) lost all interest in it and gradual distancing towards the shop became apparent. Thus scapegoats were sought to justify losing interest: Mimi's school was accused of not being good enough (for instance, she was called a number, not a name - which David found degrading); life in El Grullo was too provincial, and so on. Also, David would take on small projects that were unrelated to the running of the store, and which involved his engineer's knowledge. So he started making drawings for houses of acquaintances both in El Grullo and in Colima. And he invested his time in an old hobby of his: building japanese-style lamps (which took him about three months each to finish). Chela, on her part, was discouraged by her brother's attitude, and seemed to comfort herself with the idea of the probable sale of the store. Her merchant's blood, though, was too strong to simply accept the prospect of becoming a retired tradeswoman, and before I left El Grullo Chela had already mobilized her network in Colima to obtain information about well-located stores in the center of town.

Conclusion

Can we say something about the feasibility of David and Chela's store? Was their project able to turn into a obligatory point of passage between

its global and local networks? As we saw in Chapter two, the degree of feasibility of a given project is a function of its ability to become an obligatory point of passage between the global and local networks it helps construct. This in turn can be appraised by the degree of convergence - that is, the success or failure to impose a given translation and a translation regime - of these networks, and by the momentum the project is able to gain.

In the case of David and Chela, the project never really gained momentum. That is, at no point was it not possible for them to go back on their steps, and neither were their future activities determined by the actions taken since they had taken over operations. Thus David and Chela never took decisions concerning the store that proved irreversible: apart from setting up Gaby's cheese shop,³⁵ no substantial investments were made - either in terms of desired infrastructural changes to the shop, or in terms of home improvements. Likewise, the initial moral attachment to the store slowly waned. In fact, at any time David and Chela could have given up operations, sell the store, and go back to Colima.

The project, then, did not gain momentum. But how about convergence between the global and local networks put in place by the store? From the case, we can infer that David and Chela did not succeed in adding any local rules to already existing ones: the general rules - the initial agreement with José and Gaby - were only partially modified, and from their negotiations with new suppliers of goods one can conclude that the possibility of adding local rules to those followed by official distributors was at best remote.

Likewise, one can conclude that David and Chela's translation efforts proved unsuccessful. Their problematization of the situation was straightforward: if their project was to become successful then a) José and Gaby's claims needed to be kept at bay through new supply channels; b) the shop and the house required remodelling and improvement; and c) more clients would be needed. To concretize this problematization, a heterogeneous network of actors would have to play the roles set out for them by David and Chela: José would have to be willing to renegotiate the initial agreement so that investments in infrastructure could be made; Gaby would have to swap her claim on profits for a cheese shop; new suppliers would have to offer their goods on the same terms as José; clients would have to be interested in new product lines, and so forth. Were these actors willing to play these attributed roles? As we saw in the case, some of these actors were successfully enrolled into the project. Thus Gaby - after lengthy struggles - acquiesced to David and Chela's wishes, and clients - to a degree - seemed to be interested in the new products sold. Other actors, however, only fulfilled their roles partially. Thus, for example, new suppliers of goods turned out to be willing to participate in the project, but only under unfavourable conditions and at the cost of excessive complications. Finally, one crucial actor - José - had

different thoughts on the agreement, and could not be made to obey the project's problematization. Enrolment of actors, then, was only partially successful. Hence, the project did not take the direction proposed in the initial problematization. In other words: the degree of convergence between the actors involved in the project was low, and the *collectif* did not act as one enterprise.

To return to our initial question (can we say something about the feasibility of David and Chela's project?): the project did not act as an obligatory point of passage between its global and local networks. Although the project was able to provide some of the actors of its global network with a timely reward (i.e. José and Gaby were given their share of profits; new suppliers were paid for their goods; clients could buy the products they were interested in), difficulties in a successful contextualization of the project stood in the way for obtaining enough room for manoeuvre to construct a durable local network. In other words, problems with the 'context' impeded David and Chela from turning their project into a locus of control over transactions between the local and the global networks.

Notes

1. David and Chela never knew I was doing a study on them.
2. See also Gómez (1992) for a historical account of the rise of local, family-run firms.
3. As of this writing, El Grullo is the most dynamic commercial centre in the region, and customers from a wide area come to town to shop - not least because of the scale and scope of "La Compañía".
4. In some circles, the story circulated that Don Manuel started the business after having found a *tesoro* (a trunk full of gold) near the river in El Limón, his place of origin. The treasure, which at first brought him prosperity, eventually also cast a spell on him. As the anecdote went, his wife Norberta - known for her stinginess - once started to count the gold left in the trunk when a client dropped into the store. Trying to hide the trunk, Norberta sat on it. Harmful gasses were released from the trunk, killing her some months later. Don Manuel never recovered from the loss of his wife in 1983, became ill for a long time, and eventually died in 1987.
5. According to the new policy, farmers would have to pay for extension services themselves. Some financial assistance could be provided by SARH, but personnel would have to be hired from consulting agencies, not SARH.

6. David went all the way to the Governor of Jalisco - Guillermo Cosío Vidaurri - to make his case. David knew Cosío from high school, and had met him once on the street when the latter was major of Guadalajara. Cosío recognized David, who addressed the former with the formal '*licenciado*' (lit.: lawyer). The major then asked why David had called him by his title, adding modestly that he still remained "Guillermo" for him. So when problems at SARH loomed at the horizon, David decided to call on the Governor. Although David was never able to get an audience with him, Cosío nevertheless appointed (through his personal secretary) David to SEDUR (Ministry of Urban Development). However, the salary offered to David (USD 400) was only a third of what he was earning at SARH. David said 'no thank you' and never returned to the Governor's office again.

7. David however declined the offer, taking an engineering degree instead.

8. This amounted to some USD 200 of benefits.

9. If more than four or five products were bought Nena would normally write down the amount to be paid on a note, and pass this on to David or Chela. This was always the case with fresh produce which first had to be weighed.

10. Gaby had married two years before the takeover of the store. According to David, her fall in income should have been no problem because she could depend on her husband's. Moreover, as David reckoned, it had been through Gaby's mismanagement that debts had been incurred in the first place, so it was only 'natural' that she should be punished for this.

11. The accusation of heartlessness was returned by David, who charged Gaby of first having been 'spoiled' by her grandfather who gave her everything whenever she wanted, but then shamelessly married barely 17 days after her grandfather died.

12. Clients would have to unload the heavy bottles from the rack themselves, as Gaby was seldom in the store and as they were too heavy for Chela or Nena to lift.

13. This setup of course introduced tensions to do with accountancy (Chela) and control (José and Gaby). The room for manoeuvre between the project and a part of its global network was thus under constant pressure.

14. Due to their migration experiences, many customers were used to shopping at fully-equipped *marketas* (self-service shops catering mostly to Latino migrants) in the US. In El Grullo, successful stores were also applying this formula, which clients seemed to prefer.

15. The content of the row was as follows: David wanted to build a structure on his roof to dry clothes. David saw that Tarcisio had some metal tubes lying around unused in a property of his. David, who could not find Tarcisio, then spoke to the latter's son who agreed to sell whatever unused tubes David could find. As David (together with his neighbour) was collecting the tubes, Tarcisio showed up and screamed that David was a thief, that he had nothing to do on his property, and so on. David tried to calm him down, but to no avail. Meanwhile, passers-by packed the scene to hear what was going on. David felt very embarrassed by the situation and has since kept his distance from "Mandamás".

16. Sales were distributed around the calendar which meant that suppliers often faced peak demands for specific products. To keep their customers satisfied David and Chela had to make sure they were not sidestepped by suppliers at crucial moments. Careful estimation of consumer demand thus called for advanced planning of purchases - especially of perishable products.

17. Nena (36 years old and mother of 7) added weight to this claim by arguing that she did not really need the job at David and Chela's. To an extent this was certainly so. For one thing, she was entitled to a monthly pension of USD 240 from the US because two of her children had been born in California. Also, Nena sold jewelry and trinkets on commission when not at the store - a door-to-door business that left her a profitable 20% on each item sold.

18. The house in Colima was not rented out because David and Chela reasoned that it would be legally difficult to get the tenants out in case they decided to move back to Colima.

19. Setting up the cheese shop however did not smooth out problems with Gaby. For example, a huge row developed between David and Gaby when the latter bought a mattress from a friend - paying in kind from products she took from the store while Chela and David were away, and never repaying the debt. Though Chela seemed not to care too much about the incident, David went as far as not talking to Gaby for over a year.

20. Also, and in order to have José interfere as little as possible with their affairs, Chela and David fully took care of Gaby's mother - paying all her expenses (including her social security premium).

21. Knorr, on its part, would only sell its sauce if David and Chela agreed to buy Knorr's powdered milk as well.

22. David and Chela never asked for an invoice when stocking at José, and most products sold at their store were thus invisible to the Ministry of Taxes. José, for his part, could easily camouflage his sales to this Ministry as many of

his wholesale purchases were booked under the category of non-processed agricultural produce (no payment of taxes is required for these products in Mexico), even if they were not. Needless to say, since this practice of escaping governmental control is widespread, the Ministry of Taxes is obviously left with a caricature or, at best, a deflated view of the sum total of economic transactions.

23. *Procuraduría Federal del Consumidor*, the Federal Consumer Agency.

24. Besides proselytizing against street peddlers, David's four speeches always carried an anti-PRI tone, for example by accusing *pristas* of being a "bunch of lazy bums living off the people". If the PRI wins, the people lose." Interestingly, as an effect of the speeches, PAN voters increasingly shopped at David's.

25. David opposed the idea, and instead offered PAN use of the wall. Since David and Chela could not draw a common line on this, José and Gaby - as co-owners of the property - were called to cast their vote on the issue. Gaby did not care, but José insisted that the wall should be utilized by PAN - which eventually painted its slogan.

26. This strategy, however, was not purely based on a profit-maximizing rationality. Indeed, on many a profitable moment the store would close, for example on Sunday evening when both David and Chela attended Mass (the *plaza* would then be literally full of potential customers) or on Mother's Day (the most profitable day of the year) when Chela visited the local cemetery to pay tribute to her loved one and David did the same in Guadalajara.

27. An example of this was the local cadre of PAN (National Action Party) in which David had an active input. Also, customers who followed religious courses with David enjoyed his favours while they shopped at the store. This category of clients was quite large, as David participated in a host of local and regional religious meetings where he would meet fellow Grullenses. The meetings provided an opportunity for David to get acquainted with people that did not belong to the circle of his in-laws.

28. These David actively tried to dissuade from buying. This category was composed of those he did not consider 'good Catholics' - as was the case of Amerindian sugarcane cutters especially from the States of Guerrero and Oaxaca. David considered these Amerindians to be heretics not willing to be brought on the right track as they did not wish to follow the word of Christ. In addition, David reasoned that although *chúntaros* were strong ["like all pure races"] and good sugarcane cutters, they had a general lack of morals, were filthy and thus not worthy of one's friendship. As an example he mentioned that there was a shelter in El Grullo where these cutters met their physical needs just where they pleased - despite the fact that sanitary installa-

tions were available on the premise. Or they made love by just turning their back to those present in the room they were in.

29. So, for example, Chela would often try to dissuade sugarcane cutters from buying candies or beer, alleging that they could better invest their money in healthy products.

30. Some of the creditors were very much disliked - especially by David: "These are millionaires with tens of hectares full of sugarcane who in a very matter-of-fact manner buy stuff at the shop and then just walk away saying: 'oh well, I just don't have money on me right now. Write it down for me, will you?'"

31. Clients were never given more than a month to pay, and a fee worth 10% of the price of the product was charged for the 'service'.

32. Initially some money had been put aside at the *Caja Popular* to buy the truck. However, it soon appeared that the rate at which savings could be put aside was lower than expected. The idea of buying the truck had thus been temporarily put on ice.

33. David obtained nearly USD 6,500 as a remuneration. This sum however he lent to his brother Manuel in Guadalajara, who in turn lent it to a friend who owned a stall at the *Central de Abastos* (wholesale market) there. As collateral, this friend left Manuel a cheque worth USD 9,300 (the sum of the loan and the interest due at the time he planned to repay the debt). In turn, Manuel would give David a monthly 8%. However, after some time the stall operator went broke and no money at all could be rescued at first (the man owned a house in Guadalajara but it was on his wife's name). Manuel did reinstall part of the debt to David - USD 3,300 - and by the end of 1993 David was still counting on his brother to honour the remaining arrears.

34. No mortgage rested on this property, which was in David's name. Its value was estimated at USD 100,000.

35. The capital involved in setting up Gaby's cheese shop had - to a great extent - already been recuperated because part of Gaby's profit share subsequently belonged to Chela.

CHAPTER 7

PRODUCING MEZCAL

Controlling mezcal consumers at a distance

As I am musing about how to write these opening lines, my eyes meander across my room. They stop at a particular "trophy" I brought home with me from Mexico: a now framed cardboard poster of *Reserva del Abuelo mezcal*.¹ The bottom line of the ugly icon displays the company's slogan: "*ideal para combinar con todo*" (ideal to mix with everything) and the name of the producer: León Gómez. I have to sigh. The poster pictures a tranquil, agave-filled mountainous landscape which transports me back to El Grullo, where I collaborated with León in distributing his *mezcal*. I remember it being a rather 'easy' job, participating in a well-established distribution network. But has this network always been the way it is? Clearly not. For one thing, when León's great-grandfather started distilling *mezcal* in Tolimán around 1880, he was one out of nearly twenty local producers that were catering for a very limited assortment of clients, most of whom never left the extremely secluded area. In fact, in Tolimán *mezcal* seems to have been obtained for *fiesta* and working-party arrangements rather than for commercial purposes. The small amount of *mezcal* that did leave the community in dried pumpkins enjoyed a good reputation in far-away places such as Colima and Zapotlán (see map). However, selling the at times illegal drink in these cities entailed a long, difficult undertaking only carried out by the more experienced and risk-taking traders and smugglers. Also, the distillation process was very rudimentary if compared to today's more 'technified' methods. For example, no stills were used, and converting fermented saps into distilled spirits was a time-consuming process in which alcoholic vapours slowly condensed against a wooden, water-cooled bell.

Things have indeed changed. A paved road now connects Tolimán with vital infrastructural arteries, and the passage of now legal drink to distant places has become commonplace. At the *taverna* (distillery), new technologies make possible distillation on a larger scale. Also, a larger chain of people and things are now directly related to the process by which agaves are transformed into *mezcal*, and *mezcal* into happiness, drunkenness, fights, and hangovers. A chain that spans, for example, State level officials, alcohol inspectors, federal police, distributors, and agave producers just as it contains bottles, bars, and Alka-Seltzer.

In this process of transformation *mezcal* allowed for the build up of a considerable fortune. It was León's grandfather, who inherited the distillery as well as some 20 hectares of land and a few head of cattle, who laid down the building block of family wealth. He did so by selling all his assets and putting all his eggs in one basket: the production of

mezcal. This coincided with a period (around 1905) when *mezcal* became increasingly commercialized in the pre-revolutionary boom towns of Colima, Manzanillo and Zapotlán (now Ciudad Guzmán).

After the Revolution, and especially during the Cristiada years (1926-29), possibilities for commercialization of *mezcal* were scarce. In these years, many distilleries stopped operations. During this period, León's grandfather, for financial reasons, rented out the distillery for some years, only to seize it back when he saw that his tenant was again making money with *mezcal*.² By the time Rodolfo, León's father, took over the enterprise as the sole heir, the distillery was already well-established and boasted a "good name". With him, the distillery flourished for more than three decades. In these years, Rodolfo was able to successfully push his competitors out of business - to the point that, at his death in 1989, "Las Palmas" (as Rodolfo's enterprise was officially registered) was the only distillery left in Tolimán. With the money made on *mezcal* Rodolfo was able to buy El Mezquital (100 hectares of fertile land alongside the Tuxcacuesco river) as well as over 700 hectares of land that was ill-suited for agriculture but large enough to accommodate his 300 head of cattle. This clearly made him an influential person in the community, to the extent that some still remember him as a *cacique* (strongman). The success of "Las Palmas" was thwarted when *mezcal* distilleries from neighbouring Tonaya (especially that of Federico Paz, presently the largest producer in the region) boosted their production in the mid 1970s.³ In the wake of increasing competition, the quality of *mezcal* decreased, to the extent that nowadays so-called 'commercial' *mezcal* is by far the most important product of the several distilleries in the region. However Don Rodolfo, a stubborn character, did not follow this route and stuck to the production of high-quality *mezcal*.⁴ In economic terms, this did not turn out to be the best bet, and Rodolfo slowly lost ground to the inferior (but cheaper) alternatives coming from Tonaya.

After Rodolfo's death a huge fight over inheritance ensued between his eleven children. To complicate matters, no will was left and the four eldest children who had already received - and spent - their inheritance shares while their father was alive again requested a share.⁵ Thus barely a year after Rodolfo's death, the estate was effectively taken apart by his sons and daughters. The Benjamin of the family, León, managed to inherit 20 head of cattle, 70 hectares of land for grazing purposes, 4 irrigated hectares next to the river, the parental home, as well as the distillery - though curiously not the plot on which it was located. As a consequence, León was forbidden access to his own distillery. Hence, *mezcal* production stopped for nearly two years. The problem was solved when León bought a plot on the opposite bank of the river, hired a large crew and eventually moved all things from the old distillery at night - when his brother the owner of the plot was sound asleep. To-day, León still does not get along with any of his brothers.⁶

At the time of my fieldwork, León's main dilemma concerned the expansion of sales: how could he do so in the context of an increasingly competitive situation? In this Chapter, I follow León in his attempts to enlarge the market for his product. What tools, however, do I have at my disposal to describe and explain these attempts? Can one draw upon mainstream sociology? In a way, the answer is yes, since sociological theory provides ample room for the study of, for example, the organization of production. It tells us that one may visualize the production of goods as a process in which *people* put together *resources*. According to this view, people play specific roles in a given, gendered division of labour, and are accommodated into the categories of management, labour, capital, or land. However, mainstream sociology advises us to limit the study of production to specific periods in discrete locations - that is, to those confines where people actually mix resources. Thus there exist studies of Fordist factories, manufacturing homes, agricultural plots and modern offices. Sometimes the picture becomes a little more diffuse, as is the case for the production of services, or in the literature on flexible specialization. Yet what these studies all have in common is the neat separation between objects, people, places, and time.

I object to this separation. For good analytical reasons, the main difficulty with this position is that mainstream sociology - no matter what its intellectual fathers proselytised - does not take *practice* into account. And I think that if we want to address critically León's dilemma one has to do just that: take practice seriously, and not surrender it in a bout of purification. If we want to remove the smoke screen that mainstream sociology has cast upon the activity of producing goods, we must not fear to tread other paths. We must be able to switch from offices to agave plots, or from supermarkets to copper stills. We must be willing to associate - like León - consumers of *mezcal* with oak barrels and product stickers. And we must be willing to jump from yesterday to today, as many times as need be. And to tomorrow. Why? Because producers of *mezcal* also do so in practice. Only then will we be able to provide an alternative; an alternative that addresses the question of how consumers are first made in order to be subsequently controlled; an alternative that emphasises the way León struggles to keep potential enemies and collaborators - whether they be consumers, input suppliers, competitors or his own workers - in line; an alternative that makes visible how León goes about ordering this *collectif* made up of close and not-so-close actors, of how he succeeds in making them obey him - or keeping them at bay in case he fails. In short, an alternative that shows how León struggles to put together heterogeneous actors in such way that they do not make off in all directions - leaving him literally empty-handed. It is these practices, this work, which I describe in this Chapter.

The next section concerns the local(ized) construction of consumers. I do so in order to illustrate the central point that, if a producer wishes to control consumers' desire from a distance, then first consumers need to be 'designed'. Thus in the remaining part of this Chapter I explore the way in which León tries to construct consumers - principally by way of technical innovation in the cooking of agaves, the prime material of *mezcal*. As the narrative shows, a host of other actors - competitors, workers and nonhumans - play crucial roles in this construction effort or 'script' (Akrich 1992).

Seducing consumers through a technical innovation

León's main concern is to convince consumers to buy his product. This is not an easy task though. Indeed, a market for *mezcal* already exists, and encouraging consumers to buy his *mezcal* is analogous to snatching them away from his competitors. León's competitors, however, are not innocent doves: they also try to seize León's (potential) clientele through all sorts of devious stratagems. For León, the old adage that the best defense is a good offense certainly holds true.

What means must León employ to enlarge his clientele? How must he bring these to bear on the potential buyers of his product? How can he finally convince them? Because of the contingent nature of this enterprise, there exists no straightforward, a priori strategy on which to rely. Whatever strategy León adopts, it will be one that takes account of these contingencies. One central resource, though, upon which León can start to build his strategies concerns his knowledge about the distributed nature of the *mezcal* market. For example, León knows that tequila is the undisputed king of the hill north of Guadalajara, while *mezcal* is hard to beat on its home turf to the south of the megalopolis. Also, he knows that añejo ('commercial' *mezcal* that has been coloured yellow to resemble *mezcal* aged in oak barrels) does well in the states of Colima and Michoacán as well as in nearby Ciudad Guzmán, while blanco (white *mezcal*) is fancied in the region where *mezcal* is produced, as well as in the vicinity of Guadalajara.⁷ Equally, León knows that the ups and downs in sales are related to *fiestas* and *funciones* (rodeos) in both local and more distant places. Thus sales skyrocket in the post-harvest season⁸, while during Lent, the hot season⁹, and all through the agricultural cycle¹⁰, a drop in sales is evident. Indeed, based on this knowledge, León ascribes a geography and a topography to the market of *mezcal*.

Whatever means León mobilizes to enlist latent admirers he does so based on some categorization of who likes what, where, and when. In the same fashion, would-be *mezcal* buyers make their decisions based on their knowledge about producers in general, and about the specific qualities of *mezcal* in particular. This knowledge, of course, is not a

neutral element at the consumers' disposal. It is a knowledge that distributes the characteristics of *mezcal* (including its quality) and its producers. It is a knowledge that imputes, a knowledge that cuts like a double-edged knife. And producers are very much aware of this. Thus, when producers unload inputs at the distillery, it is expedient that some of these inputs are *never* seen by onlookers. Anybody, for example, seeing a 50kg bag of sugar entering the distillery may easily speculate it to be a bag of ammonium sulphate (a fertilizer) to boost fermentation (a practice consumers often attribute to producers of inferior quality *mezcal*). Although both sugar and ammonium sulphate may be used - and in fact they are - to increase the speed of the fermentation process, adding fertilizer to *mezcal* is generally taken as a sign of the producer decreasing his costs at the expense of poisoning his clients. This type of gossip spreads quickly, and may have a detrimental effect on sales.

How gossip can affect business is illustrated when León, El Chato (a distributor of his) and myself visit Chava - owner of the only store in Los Chivos, a hamlet in the vicinity of Tolimán. The reason for our visit is Chava's sudden decision to stop buying *Reserva del Abuelo*. El Chato notified León about this, and we want to catch up on the story. Upon our arrival Chava - alderman of Tolimán from 1989 to 1992 - immediately serves some cold beers. After some general and polite comments Chava accuses León of not making any more the *mezcal* his father was renowned for. Also, he discloses that it was his customers who had imposed the decision not to stock with León, as they had gradually turned their backs on the brand. More specifically, Chava's customers had told him that León was adding sugar to the fermentation tank, and thus in fact degrading the *mezcal*. Chava then confides that he is now buying *mezcal* from Carlos Ortíz, a producer from Tonaya. And, according to Chava, it seems that his clientele is happy with the change.

As the example suggests, variations in taste - changes in the attributed qualities of a product - may turn the (potential) customer into a reluctant one.¹¹ Luckily for León, complaints about a quality dip do not often surface. It is clear, however, that the heftiest battles between producers and consumers of *mezcal* are fought out in the domain of taste. If a producer of *mezcal* wishes to be successful, then knowledge of what consumers fancy is crucial. One way of obtaining such knowledge resides in the existing terminology consumers use to refer to *mezcal*. Indeed, a vocabulary exists to address variances in the taste and composition of the liquor. This vocabulary ranges from the pejorative *hinchapatás* (literally: *mezcal* that causes inflammation of the feet) to the less offensive *bravo* (harsh) or *zarco* (tangy). These vernacular categories also encompass terms such as *vino*¹², *tequila*¹³, and *mezcal puro de olla*¹⁴ which is considered the very best and is elaborated on the basis of mature agaves cooked in a traditional basin, fermented without any additives or artificial boosters, aged in oak barrels, and with an alcohol percentage of close to

50°GL. León's clients classify his 'commercial' *mezcal* as belonging to the first category (*vino*), but his more expensive variety is said to have the taste of *mezcal puro de olla* because the agaves are still cooked in the traditional way, that is, in a basin. This last product has three important properties that differentiate León's *mezcal* from that of his competitors: it matches the taste of *mezcal puro* closely, it is not extremely expensive, and it does not resemble *tequila* too much.

Knowledge about folk categories is thus a valuable asset, and has collaborated in making León's *mezcal* a well-liked product - the popularity of which, as we have seen above, can be contested any time. But knowledge of folk terms is not sufficient. A host of other elements need to be incorporated, translated, delegated into León's *mezcal*. These include distinctive, stylized glass bottles that come with new, plastic product stickers as well as new packaging material to differentiate his 'premium' type of *mezcal* from his 'commercial' variety. To add weight to their message, these means are escorted by marketing. Thus logos on all of León's pick-up trucks state that "*La calidad esta en Toluimán*" (quality comes from Toluimán). Or beautiful models wearing short dresses hand out free samples of León's *mezcal* to visitors at cockfights, rodeos and bullfight rings, where free T-shirts and aprons portraying the brand name are also distributed. Also, posters are hung at small shops and liquor stores to charm customers in places where *mezcal* is known to be in demand. If a bottle of León's *mezcal* is able to draw together these heterogeneous elements at all, it is because of León's complex strategies and formidable work.

Yet, despite his strategies, León's success is relative. He keeps dreaming of a larger market - irrespective of whether or not the clientele is willing to expand. A larger market however entails a greater output. León's project, then, is to expand production without making noticeable sacrifices in taste, and without having to re-configure his clients from scratch. How can he achieve this? Two answers are possible. One involves increasing the output per unit of agave. This ultimately involves improving the quality of the raw material, e.g. the sugar content of agaves. But this proves difficult as mature agaves are hard to come by. A second alternative entails maintaining output per agave but shortening cooking and fermentation time to increase turnover. The latter case would require efficiency improvements, for example through an increase in the temperature of the fermentation tanks - which is quite an expensive business since it involves fossil fuels. In the case of shortened cooking time of agaves, an equally expensive *caldera* (cauldron) would have to be built. What road did León take? Initially, the cheapest answer to increase production was to switch from agaves normally used to distil *mezcal* to the variety of agave that is used for the production of *tequila* (*agave tequilana weber azul*). The reason was simple: the relation between weight and

fermentable sugars is much higher in *agave tequilana* than in the local *agave limeño* - which is normally used because of its strong flavour which is much liked by consumers. This strategy, however, backfired when customers complained that León's *mezcal* tasted like *tequila* (a 'bad' attribute for *mezcal*) and so the experiment was discontinued. The second alternative, shortening cooking time through the introduction of a cauldron, was not deemed a good solution since the process affected the taste of *mezcal* - again making it resemble that of *tequila*.

After his failure with the *tequila* agaves, León opted for a third alternative: an increase in efficiency through an innovation in the cooking process. The innovation consisted of a chamber (much like a cauldron) fitting 6-7 tons of agaves. These are brought into the chamber through a heavy, metal door that seals the chamber from the outside. Inside, the brick and cement chamber is shielded by tiles that can withstand 17,000°C. Underneath this chamber there is another room containing stones that spread the heat generated by burning wood located in yet another compartment below. Metal grids separate the three compartments to prevent agaves coming into direct contact with the stones, and the latter with the burning wood. The lower compartment is below surface level, and can be accessed through a stair that connects to a tunnel and a metal door¹⁵. The main advantage of this system over the old basin setup is that agaves can be brought in and out of the chamber without having to cover and uncover them with nylon sacks and sand, while at the same time retaining the 'woody' taste of *mezcal* made in the basin. This relatively complex function has been effectively delegated to the metal door. In addition, stones do not any more need to be taken in and out of the basin in order to clear burnt charcoal and ashes from the last *tatema* or cooking of agaves, and load the basin with new wood. Again, these difficult tasks have been delegated to a simple design involving metal grids, a metal door, a tunnel, and a stair. Overall, the amount of time saved by this innovation is considerable: in the old setup, loading a basin would take two persons a full day, and unloading the basin would take two full days because the hot stones have to cool down before they can be removed. With the innovation, the process of loading and unloading can be achieved in a matter of hours. An additional advantage of the new setup is that one can check on the degree to which agaves are cooked because saps will start flowing onto the lower level as soon as hydrolysis is complete. In the basin system, this could not be controlled entirely because saps would start flowing to an area that was viewable by eye.¹⁶

The innovation, then, was of a hybrid nature. It was an artefact that operated on other nonhumans, but at the same time it was utilized to lessen the burden of humans since it allowed León to increase control over the quality of the final product, shorten the cooking time of agaves to increase productive efficiency, and cut labour costs. (Interestingly,

León's labourers did not object to the innovation, especially because it made their work much lighter.)

Obviously, the innovation was not easy to introduce. In fact 'technical' questions related to the operation of the new artefact preoccupied León most of the time for months on end. During this period, León tenaciously experimented over and over again until the innovation slowly became a worthwhile investment. In the process, many a load of agaves was partially lost. For example, a solution had to be found to stop agaves from burning due to the higher temperatures reached in the oven.¹⁷ Other problems also often plagued León, such as the uneven distribution of heat inside the oven which accounted for some agaves not being fully cooked.

These and related problems were a function of a more critical one: would the innovation help León to better control consumers? Put differently, could the innovation help him expand his business? There was no easy answer to this, because in the end success would be measured by the consumer buying - or not buying - *mezcal* elaborated from agaves cooked in the new oven. The success of the innovation was thus difficult to evaluate not so much because León did not have the means to assess it (after all, León could easily keep track of increases or decreases in sales), but because the innovation redefined the evaluation tool itself: the consumer (was he willing or not willing to buy the 'new' product?). In other words, the innovation set its own parameters of success.

So far, I have suggested that León's main concern - to enlarge his clientele - was initially addressed through an innovation in the process of cooking agaves. To this end, a considerable number of elements were brought together in a complex sociotechnical mix. The stage was thus set for the next step: to actually enrol clients into buying the new product. Therefore, León needed to mobilize a number of additional actors who were not 'natural' allies to his concerns. To align these actors - that is, to keep them together and stop them from going in their own directions - entailed intense struggles and complicated negotiations on a number of fronts. What did these fronts look like? How were all the heterogeneous actors made to play the game orchestrated by León? These are empirical matters, and involve what Callon and Law (1989) call 'trials of strength'.

In the remaining part of this Chapter, I will address these trials of strength as they develop on a number of different fronts: that between León and his fellow competitors; that between León and his (potential) collaborators; that between León and his workers; and that between León and his own, competing parallel activities.

Friends and foes I: keeping competitors at a distance

"Persuade consumers to choose your product!" This is León's deceitfully simple motto. Yet this guiding principle is shared by fellow *mezcal* producers. León tries to snatch consumers away from his rivals, but his foes in turn are busy designing ways to capture León's clients. This situation is clear to all producers of *mezcal*. So what strategies are deployed in the face of these circumstances? For León, two possible alternatives exist. Either he convinces his contenders to take his side - for example by joining in a common objective, in which case he will have to ask whether colleagues will be honest and not out to betray him - or he tries to keep them at bay. In both cases, a good deal of resources needs to be mobilized.

Let us turn to the first alternative. What initiatives has León taken to convince fellow competitors to work towards a common goal?¹⁸ First of all, let us consider that León does not get along with all *mezcal* producers equally. Between producers of *mezcal* there exists a clearly demarcated geography of friendship, and out of 27 *mezcal* producers in the region, León is only on speaking terms with six of them. This means that potential joint initiatives can only be realized with these producers. Indeed, with them he tried to reach a common objective - such as participation in the so-called 'Integrated Enterprises' program. This programme, supported by NAFINSA (a national financing institute that supports small businesses) was geared to unite producers of specific sectors in order to enable collective trust while maintaining the autonomy of individual enterprises. Thus the program facilitated the acquisition of common computing facilities, financial and accounting services, quality control mechanisms, and export possibilities. In the end, however, a joint venture between León and some of his competitors was never took off (see Chapter Nine for the different reasons that were said be accountable for this failure).

Since joint action proves to be difficult to achieve, León has to prevent competitors from pushing him out of business. Although a difficult enterprise, this is the strategy he more often pursues. In particular, León's efforts concentrate on keeping his 'business secrets' from falling into the hands of his competitors. One way to achieve this is by not engaging too much with individuals who can pass on gossip quickly. Take for example Sergio, León's main distributor. Prior to working for León, Sergio distilled *mezcal* for close to four years for the Arias brothers in nearby Apulco. Bored of working at the distillery, Sergio asked his employer to let him distribute *mezcal* together with his brother who was already distributing Arias' products. However, the company was not at that time in need of more distributors, and so Sergio looked elsewhere - ending up with León. In due time, an ongoing flow of information started coming in León's

direction, especially since Sergio's brother and best friends (who still live in Apulco, 20 kilometres from Toluca) work for *mezcal* Arias.¹⁹ León, aware that a dog that will fetch a bone will carry a bone, minimized the amount of information he let Sergio have access to (for example by never letting him actually see how the taste of *mezcal* was 'improved': Sergio knew that León played around with chemicals, but he did not know which ones, or in what amounts), and took the utmost care in ensuring that his other distributors did not get too "close" with competitors.²⁰

Another strategy followed by León to prevent others from gaining access to crucial information was to obtain exclusive access to certain resources. Thus, for example, León used water from Toluca's only well for the fermentation of his *mezcal*. This way, and unlike most producers, he was free from water distributors from El Grullo who supplied different distilleries and were thus a potential hazard since they could pass on gossip - for example about the amount of water delivered (an indication for the volume of production) or the time of delivery (an indication of the state of the market at a given time). Also, León had recently started to sow his own agaves on rented plots. This would enable him, in the long run, to become independent from middlemen passing information on the level of his purchases to others; also, this strategy would make him less dependent on competitors bidding higher prices for an increasingly scarce resource.²¹

Friends and foes II: recruiting allies into the *collectif*

The old adage that the world is composed of friends and foes holds true for León, for you, and for me. As long as goals are not mutually exclusive no problem exists. What happens though if goals are mutually exclusive? If the business one is engaged in interferes with the business of another? We must then - not unlike León - ask (and answer!) the question: are you with me, or against me? Are you friend or foe? As Machiavelli taught us long ago, in competing situations rivals are better excluded from one's projects. But then, to run an enterprise, one needs not only to exclude enemies, but also to enlist allies. This is a complicated matter, since these can always make off on their own, or join new forces that oppose your interests. So how does León handle these potentially untrustworthy allies?

As will be made clear in Chapter Eight, distributors are the most obvious collaborators in the construction of a common space between producers and consumers. This is no different in the case of León, who distributes *mezcal* in different ways and through diverse arrangements. Six distributors, for example, directly work for León, and each of them operates a different route. They load *mezcal* into their trucks and cars, get an invoice and have to account for their sales upon their return (which

may take anything from 1 to 3 days, depending on the route). Two of these distributors (Sergio and El Muerto) drive pick-ups owned by León, but have to pay for the operating costs. The other four (Barragán, Ramón, Benito and El Papas) have their own transport. All get paid a commission of around 15% on gross sales.²²

The bulk of León's production finds its way to the consumer through these six distributors whose total sales account for more than 50% of León's output.²³ In addition, León has six resellers who obtain the *mezcal* through the direct distributors. Six other distributors working in more or less distant areas resell León's *mezcal*, which they obtain through the intermediation of León's direct distributors. This type of 'relay distribution' accounts for the circulation of a huge part of León's production (anywhere between 500 and 1,500 litres a week, depending on the season, the proximity of fiestas, etc.). Other, small-scale distributors operate on an independent basis and pay cash or kind for whatever amount of *mezcal* they take from León's taverna. None of these distributors buys over 50 litres a week, but the total amount they distribute (between 200 and 300 litres weekly) is certainly not negligible.

Although in principle these distribution modalities look straightforward, in practice they are the outcome of complex negotiations. For one thing, not just anybody can become a distributor of *mezcal*. As I argue in the next Chapter, a bottle does not sell itself, however seductive it may look. Skills are needed to entice customers. But other factors may be crucial as well. For example, Sergio got the job (and the pick-up) not only because he had the skills to sell - which he learned through his brother - but mainly because León benefitted from Sergio's kin: after all, Sergio's uncle in Cihuatlán was León's second-largest reseller.²⁴ Other distributors are only needed on specific occasions - for example when fiestas are coming up. Also, the relationship between León and his distributors varies from harmony to distrust. Such is the case with Primitivo, a part-time distributor from El Grullo who was once cheated by León's brother at the time when León's father ran the distillery. Primitivo now insists that whatever *mezcal* he buys at León's distillery is bottled in his presence (even though he himself is the biggest cheat among León's distributors!).

Just like himself, León's competitors are constantly vying for 'good' distributors that not only bring with them their salesmanship, but also - their most important asset - acquaintance with their last employer's clients. So how can one stop distributors running away to join the competitors, giving away your secrets (and your income)? Conceive shrewd ruses, and mobilize whatever is at your disposition to stop distributors from betraying you! As we saw in the case of Sergio, the pick-up is a powerful means of control: a distributor without a pick-up is of no use to competitors (until, of course, competitors put a pick-up at the distributors disposal - in which case the initial attachment is loosened). But this type

of material contraption alone does not prevent distributors from outwitting León - for instance by selling other brands as well. This is an open secret, so León has to be tolerant yet at the same time think of new stratagems. And it is here that he makes diligent use of an old cultural artifice: he enrolls his distributors on moral grounds through the institution of fictive kinship (*compadrazgo*). For example, the relationship between León and his most important reseller, Roberto (good for more than 400 litres of *mezcal* a week), was solidified when León became godfather to Roberto's son. This *compadrazgo* relationship is cherished by both parties - a relationship that was immediately concretized in the acquisition of joint property.²⁵

Ritual kinship relations are used by León to prevent his distributors from running away to adversaries. But it also serves to put a wedge between fellow *mezcal* producers and their distributors. A case in point is Pablo, the protagonist of Chapter Eight. After acknowledging that his credit line with his employer (Benigno Covarrubias, a *mezcal* producer from El Grullo) was running dry, Pablo slowly (and secretly) considered exploring fresh sources for *mezcal*. One of these was León, whom he started visiting more and more often - not least because León's *mezcal* was a hot item among his clientele, furnishing him with a huge profit margin. Nearly two years after initiating business with León, Pablo - who also kept working for Benigno - asked him to become his *compadre* by baptizing his newly born daughter.²⁶ León at first accepted, but the co-parenthood relationship never materialized because of the exigencies involved in becoming baptismal godfather: he would have had to go all the way to El Grullo (60km away) to follow a course at El Grullo's parish church. Nevertheless the move proved crucial for their relationship, for ever after both made recourse to *compadrazgo* terminology, i.e. addressing each other by *compadre* and the formal *usted* (you) instead of the more informal (but more indifferent) *tú* (you). In this case, fictive kinship was instrumental for León in enrolling a new distributor (and, symmetrically, for Pablo to enrol a new supplier of *mezcal*). Obviously, the same strategy may be used by León's adversaries. Although he did his best to prevent this, León can never be sure his distributors will remain faithful to him, and the fear of losing them is a constant one. To control consumers at a distance, León - and, likewise, fellow producers - must pass through their distributors.

While distributors are his most obvious collaborators other, equally important, allies need to be aligned to keep León's business running. Who and *what* are these allies? Here, the list is considerable, and contains both 'human' and 'non-human' elements. To name a few: the nearby Biosphere Reserve from which wild varieties of agaves can be collected; agaves of 10 different varieties (together with their producers and middlemen); local and regional politicians; suppliers of alcohol; accountants;

promotional T-shirts; telephones; wells; a five year old paved road that makes economies of scale possible; water from Tolimán's only well, and so on. In fact, it is difficult to separate humans and non-humans in the list: a supplier of agaves would still be a human without the agaves, but no longer an agave supplier. Things and people are nothing on their own. So when I talk about 'collaborators' I talk about things-and-people, about *collectifs*. León preoccupations, of course, do not center on this seemingly endless list. What is important for him is to organize, to order, to enlist all these different human and nonhuman elements into a coherent whole that will obey his orders. As we already saw in the case of distributors, to enlist them a variety of heterogeneous means must be mobilized.

A vivid example of this 'heterogeneous engineering' (Law 1987) is the water needed for the fermentation and production process. The water León utilizes comes from Tolimán's only natural well. This is an advantage for him, because his competitors in Tonaya have to bring water all the way from El Grullo, 30km away - a costly affair. But the water from the well is not a natural ally. León needs to mobilize it, to find a way of getting it to his distillery. Here, nonhumans such as pumps and tanker trucks mediate. But that is not all. The well is not there only to satisfy León's needs: it is a scarce public resource whose utilization is regulated by the municipality through pricing and a series of permits. So what extra means does León employ to access it? First, León mobilizes 'tradition'. Thus he continuously argued that customary rights apply because his great-grandfather was already making unobstructed use of the well to produce *mezcal*. This line of reasoning however was not legally sanctioned.

So what other means - apart from an argument - are at León's disposal in order to circumvent the insufficient quota of water apportioned to him? By chance, I happened to be present on one occasion when this issue was resolved in León's favour. We were chatting at about 9pm at his taverna when the telephone rang. It turned out that an important broker in agricultural produce was in town, and was interested in buying watermelons. Since León has some four hectares of watermelon, meeting this individual in the only restaurant-bar/canteen in Tolimán's *plaza*, just opposite the church, looked attractive to him.

Once at the restaurant, I am amazed by the people gathered around the main table: next to the broker there is the ex-mayor of Tolimán together with half the local aldermen and the treasurer of the municipality, the judge of San Gabriel and head of the municipal agents of five contiguous municipalities - including Tolimán. León and myself are introduced to the broker, and after a while the first bottles of *Solera* (the most expensive variety of *Bacardi* rum) start to circulate (no *mezcal* was served). In the meantime, business was done with the broker (León did not show much interest) and, in between joking, important decisions were being made. At that moment, Tolimán was effectively being run from the

inside of a concealed canteen. At one point, a comment was made about the scarcity of rain, and of how this affected the agricultural businesses of most present. The treasurer, directing an oblique joke to León, remarked:

"Well the only one here that seems to be getting enough water is our friend León. Hey [León], give us that recipe: how do you turn water into *mezcal*?"

León, a grin on his face, addressed the audience:

"I'll tell you how to do it if you give me the water."

The treasurer takes up the issue and answers:

"I guess nobody will get angry with you taking the water you need. Does anybody object?"

Then, making a gesture with his hands that implies the drinking of alcohol, he adds:

"But of course that's going to be an expensive business for you, keeping all these thirsty throats happy!"

All laugh, and nothing more is said on the issue. Apparently, the last comment makes it crystal clear that León will have to start circulating some bottles of *mezcal* in order to maintain his claim on public resources (water).

So far, we have been dealing with collaborators that, at first sight, seem to be either human or nonhuman. Yet other actants are of a composite character. One such example is the bank, a crucial collaborator in León's business. Indeed, without a preferential loan for USD 33,000 in 1991 at 18% a year León would probably never have continued with his father's business. But to convince the bank into becoming an ally was not a 'straightforward' negotiation between the banks' project evaluators and himself. Instead, it was a complex negotiation involving bankers and León, nonhumans such as the house, cattle, the distillery and land that served as collateral for the loan, but also mediated by human/nonhuman *collectifs* such as a business plan drafted by León's accountant, or ownership titles signed by the notary public. Likewise, intangible actants such as 'the State' (in the form of *Hacienda* or SECOFI) were incorporated into the project through the mediation of operating permits and friends that had easy access to these institutions. Of course, keeping institutions on one's side entails making transformations in the mode of ordering. So today the relationship with *Hacienda* is mediated not only

through official permits *but also* through massaged invoices. And - if only to meet the demands of the Ministry of Health - in the near future new mediators such as more hygienic polypropylene bottles will be added to the *collectif*.

The enrolment of each new collaborator into the *collectif* entails change: the project is transformed, and will never be the same again. Let me give an example. León used to buy 96% alcohol with a befriended competitor, Chuy Arias from Apulco, at USD 14 for a 20 litre jerrycan. Acquaintances in Ciudad Guzmán however tipped off León that the Tamazula sugarmill - which distils 96% ethyl-alcohol - was offering the same jerrycans at USD 13. Consequently León changed his supply source²⁷, considerably altering his business in the process. León was now able to buy cheaper alcohol, but this resulted in seeing the Apulco producer less frequently - and thus obtaining less, potentially important, information. Also, it entailed that one of his pick-up trucks would be on the road for a longer period (the distance to Tamazula - 60km - was greater than to Apulco), thus making changes in the mode of distribution indispensable.

Friends and foes III: romancing the home front.

In this section I describe the actual production process of *mezcal*. This entails a portrayal of the *collectif* of workers-and-things that compose the process. However, I will diverge from the received notion that in order to control the production process one needs to control labour through technology. Indeed, I argue that there is no need to separate the 'technical' from the 'social' or the 'political' any further.

Basically, *mezcal* is obtained through a process in which the sour saps of the agave plant are hydrolysed, fermented and distilled. Clearly, the higher the sap content, the higher the amount of saccharose to be fermented. Ideally, agaves should be harvested when they are between 10-12 years of age, shortly before their flowering stage, as their potential saccharose content is then at a peak. Although the growing cycle can be shortened (eg. through fertilization) to something between 6-8 years, high demand has led to a situation in which most commercially grown agaves are harvested before reaching full maturity.²⁸ León buys most of his agaves from local intermediaries, which are delivered at the distillery gates after the *jima* or harvest. Once in the distillery the biggest agaves are first chopped into pieces and placed in a deep hole in the ground, where they are cooked at some length in order to make available their saccharose content. In León's *taverna*, this arduous task is performed by Gualo and Agustín, who are both in their mid-sixties and have formed a team for the last 15 years. After the slow burning process the agaves are left to cool down, and are then ground with the aid of a two horsepower,

belt-driven electrical mill. Both men sometimes have to perform the milling operation twice or even three times in order to obtain finely-ground agave fibres and thus a greater fermentation surface.

The fibres are then carried to the fermentation tanks (five in total) where they are left between five and seven days in order to obtain a dead ferment with less than 1° Brix or one percent of sugar in the solution; the state of the fermentation process is measured through a scaled hydrometer.²⁹ Basically, what is needed for the fermentation process is water, the sugar-rich agave fibres, and the ferment (a bacteria). To determine the exact quantities of the main ingredients, however, requires some very specific skills, especially because it is during this stage that most problems (if any) appear. For example, one must carefully assess the amount of sugar to be added to the fermentation tank in case the sugar content of the agave fibre is low. By the same token, if the state of the fermenting bacteria is poor, yeast or ammonium sulphate are added to boost the process. A little bit too much or too little of one of the components can mean a noticeable change in the flavour of the distilled product. Both Agustín (who worked most of his life for León's father) or León are in charge of 'calibrating' and monitoring the fermentation process.

The actual distillation process commences after fermentation is complete. To this end, Gualo and Agustín carry the fermented product to a 450-litre cauldron with 10-litre buckets. Once filled, the cauldron is sealed off with a cloak, and heated from below with a burner connected to a gas cylinder. After some time, the ferment starts to boil and the alcohol steam concentrates at the top of the cloak. From there - by means of a pipe - the steam is led into the *alambique* (still) which is constantly filled with cold water. There the alcohol condenses into a small, steady stream of warm *mezcal* which is finally filtered through a cotton cloth and collected in 19-litre jerrycans. The first distilled fraction (5-7 litres) is very rich in methanol (a deadly product) and is kept separately to help boost distillation in a next 'run' of the still. The next distilled fractions deliver a *mezcal* ranging from 50°GL in the first jerrycan (*punta*) to 10°GL in the 7th and last jerrycan (*cola*). This *mezcal* is called *ordinario* or 'ordinary'. After the last jerrycan the burner is closed and the cauldron is allowed to cool down. Then the cauldron is cleared of debris and refilled with new ferment. On average, three runs (roughly 400 litre) are produced daily. To achieve this, Agustín - who lives in the distillery - needs to start the gas burner at 4:30am, and finishes filling the next day's cauldron between 4-5pm.³⁰

The jerrycans of 'ordinary' *mezcal* with a content of 10-15°GL are kept separately and later used to obtain 'commercial' *mezcal* (see Chapter Eight for a description of how this is done). The content of the rest of the jerrycans is then mixed in a 2,500 litre plastic container to obtain a product that has a homogeneous alcohol percentage of close to 40°GL and which sells as an 'intermediate' quality, white *mezcal* for USD 2 per

litre. High-quality *mezcal* is obtained by distilling the intermediate-quality *mezcal* one more time. This *mezcal* ranges between 40-75°GL (depending on whether it is a first or a last fraction) and is mixed to obtain an average potency of around 55°GL. For tax reasons, this *mezcal* is then downgraded with clean well water until it has a potency of around 40°GL (all percentages are monitored through the use of an alcoholometer). Depending on the production batch ('commercial', 'intermediate' or quality *mezcal*), the *mezcal* is then pumped to an adjoining room and into a 1,100 litre, plastic container. From there, again with a pump, the *mezcal* is filtered³¹ into two different containers of 1,100 litres each for further treatment. In the case of 'commercial' *mezcal*, an artificial colouring chemical is added to one of the containers to produce the añejo variety. The white (untreated) *mezcal* is left untouched.

The above activities are carried out mainly by Agustín and Gualo, but León may also help out. The filling of bottles and the packaging is carried out mainly by Rosa who works full-time (8 hours a day). In the case of large orders, a number of part-time workers are taken on. Bottling consists of pasting the self-adhesive product stickers to either plastic or glass bottles and filling them with *mezcal*. In the case of 'commercial' *mezcal* the plastic bottles need to be cleaned first (this is achieved by passing a bit of *mezcal* from one bottle to the next until a batch of, say, 200 bottles is prepared). In the case of intermediate quality or high quality *mezcal*, the glass bottles need to be checked for cracks as well. After cleaning, the bottles are filled directly from the container through a hose and a spile, closed and sealed with a quality control sticker. The last step consists of packaging the bottles into 12-litre carton boxes, and carrying these into an contiguous storage room.

From the above one can gather that in order to produce *mezcal* a lengthy list of elements have to be mobilized. Labour and the objects of labour are, as Marx observed long ago, relational concepts. One presupposes the other in the same way as a kingdom prescribes the existence of a king. To separate one from the other for analytical purposes would be an excellent exercise in futility. Worse still, it would negate the way in which León stitches together both humans and nonhumans in the running of his enterprise. What or who may resist the production process is a very complex question - one that in practice is never really addressed as being either of a technical or of a social nature. And it is also a question whose solution presupposes quite a bit of heterogeneous engineering' - both on the part of León and of his labourers. As one may imagine, a great many things can go wrong in the production process of *mezcal*. For example, there may be a shortage in the number of agaves that surface at the doors of the distillery. Or they may not be of high even quality, even if appearing in sufficient quantities. Likewise, yeast may resist the role attributed to it and fail to ferment agave fibres. These and other problems will impinge on the

quality of the *mezcal*, which may consequently refuse to conform to the expectations concerning taste and presentation that consumers have.

So what new resources does León enrol in order to break these possible resistances? To counter the downward trend in the availability of raw material, for example, he started sowing agaves and is presently looking for additional renting arrangements to further expand.³² Or he may decide to add a certain amount of sugar to poor-quality agave fibres in order to feed the yeast bacteria in the fermentation tanks. Or add ammonium sulphate when, for a variety of reasons, there is not enough yeast. Or glycerin to increase *mezcal*'s stickiness in the case of a poor relation between higher and lower alcohols in the final product. Or almond essence and saccharin to improve taste. And so on. Are these new resources human or nonhuman? Well, they are both. Or, more exactly, they may be partially human, partially nonhuman. León does not know this difference in quality in advance: they are an effect, so to speak, of the action undertaken to solve the problem at hand. Thus planting agaves pre-scribes a whole network of people-and-things: land and the relations necessary to rent it, or the documents required to claim it; seedlings that have necessarily been provided by somebody; the labourers needed to plant them; fertilizers and the human and mechanical paraphernalia that go with them; skills and knowledge originating in tequila factories and passed on to León through consultants.

As I already argued, it would be impossible to separate all the elements of this chain in order to ascertain the relative importance of labour control, or the objective requirements of a piece of technology. León, at least, does not. This, of course, is not to imply that León does not care about Luddist workers. He does. And he must. Indeed, the single most important feature of the relationship between León and his labourers can be summarized in one word: *trust*. Trust however is not a natural state of affairs. It has to be constructed, cherished and, once existent, maintained. Here, new strategies come to the fore. How to construct and implement trust? These questions take León to a number of arenas that fall outside the strict domain of *mezcal* production, and take him to the realm of the village. Thus, for example, each year León (following the tradition of his father) organizes two huge *fiestas*: one to honour himself (his birthday), and the other to commemorate the *hijos ausentes* (absent sons and daughters in general who are mainly working in the US). Especially on the latter occasions he provides a traditional meal (*birria*) for all Tolimenses (I witnessed nearly a thousand people showing up for one such meal), pays for different bands to play during the afternoon, and quenches everybody's thirst with soft drinks, beer, or special-purpose *mezcal* (52°GL). The feast, which is sanctioned by the religious authorities as part of the festivities to celebrate Tolimán's patron saint, the Virgen de la Asunción, provides a chance for everybody to dance,

quarrel, and get drunk in public. In the process, new alliances are forged between people who barely see each other in normal, daily affairs. Also, invitations to baptize sons or daughters circulate, and León certainly makes use of these opportunities himself as well. For example, at this specific *fiesta* León invited Julio, a labourer of his with whom he sharecropped watermelons (see below), to become godfather to his youngest son (aged 2 months). This unusual invitation³³ could not be turned down by Julio, and in fact both became *compadres* ten days later, on the exact day (August 15) of the Virgin of the Asunción. This highly symbolic transaction, however, had the effect (or so it was commented) that it committed Julio to León.

Establishing this type of relationships with his labourers through religious festivities is not uncommon for León. Although the above example is somewhat extreme, other cases equally well illustrate the point. For instance, whenever there is a pilgrimage or a wake, León is the first to offer his (financial) services for contracting a band or helping organize it. But although money is one of the most important means to 'bind' people, it is not the only one. Whenever León's stratagems cannot be achieved with money, they usually can with *mezcal*.

To give an example: early in the morning I am at the distillery together with León and Sergio, his distributor. We are engaged in a conversation about how to make a debtor and customer of Sergio pay his arrears when suddenly Tonino, an old-time friend of León's father, drops in. He informs us that a far relative of León, Felipe (26), died the day before after a football match due to heart failure. Apparently, Felipe had been on prescribed drugs, but had taken to drinking to celebrate his team's victory. León commented:

"Oh, his starter engine failed! He got an edge over us! I hope it wasn't my *vino* he was drinking?"

Some more laconic comments are made, but after a minute or two León summoned Gualo to go to Felipe's family and take enough *mezcal* with him for the wake and the burial. Here, as with fellow villagers, *mezcal* is a powerful means of building up 'social capital' that can be brought to bear on situations in which León may need the help of those he 'helped' before. In this sense, through *mezcal* León can also ensure that Gualo and Agustín keep faithful to him. So, for example, they are both allowed to sell *mezcal* to casual visitors at the distillery at the price they deem convenient. Some of these visitors come from outside Tolimán and are not up to date with prices, thus providing Gualo and Agustín with some margin for negotiation and thus the opportunity of supplementing their income. With fellow Tolimenses the enlistment mechanism is somewhat different, but the effect the same. This is made clear over and over again, for example at the distillery itself, which is nearly always filled with a

number of friends who drop by for all sorts of reasons (and especially for free *mezcal* whenever León is present). On these occasions information that may prove crucial to León's business is exchanged, and loyal networks are constructed. Indeed, León can mobilize a lot of people because they are all indebted to him for the free *mezcal*. And these networks come in handy, especially when there is a shortage of labour for the harvest of agaves.³⁴

Multiple enterprise: supporting *mezcal* production

León's main activity is the production of *mezcal*, and his goal is to sell it to ever larger audiences. As we have seen, this straightforward but demanding objective entails the strategic mobilization of heterogeneous resources on a number of fronts. So far, I have addressed those fronts that directly impinge on the activity of *mezcal* production and distribution. But León is engaged in many more fronts. Some of these derive from his responsibilities as member of the board of the primary school's parents' association; others stem from his position as president of a privately-owned irrigation unit (*Unidad de Riego*). And so on. Many of these fronts need not interest us in the context of this Chapter. Some, however, do need to be discussed since they bear upon, or feed into, León's *mezcal* enterprise. I wish to emphasize that one could never understand the flexibility of León's *mezcal* business without taking into account these activities, and how he makes them fit together. So what are these parallel activities León engages in? How and in what way do they support León's *mezcal* business?

León operates three small-scale ventures that are a contingent outcome of his producing *mezcal*. The first activity directly related to the operation of the *taverna* is the resale of 96% alcohol bought in Tamazula and which is used for manufacturing 'commercial' *mezcal*. Before reselling it to third parties, though, this alcohol is first downgraded to 85°GL (León: "Something must be earned with it, right?") and then sold for USD 1.60 a litre - more than 100% profit. Although León himself could not tell how much alcohol he was selling, from my own observations I conclude that 200 litres a month is a close approximation.³⁵

A second parallel activity is the resale of gas cylinders. This activity was started in 1991, once the *taverna* was back into production. As León explained, gas distributors used to come from Ciudad Guzmán on a monthly basis. This was problematic for many Tolimenses who, for one reason or another, complained they had to go back to cooking on firewood towards the end of the month when their cylinders were empty. When this moment was reached, León always received a visit by worried Tolimenses who counted on him still having an extra cylinder or two (León of course was seen as an 'industrial' consumer of gas for local

standards). So the idea germinated that he could easily buy an extra quantity of gas which he could then resell for a profit towards the end of the month. Talking things over with the gas company, it soon appeared that the company itself was actually looking for a local reseller, since its chauffeurs always complained about the work of having to sell and deliver the 30-litre cylinders on an individual basis. In time, the resale business grew, to the point that León nowadays covers a large part of Tolimenses' demand for gas. Apparently, his customers prefer to carry the burden of the extra costs involved (León makes USD 2 or 20% on each of the nearly 100 cylinders he resells monthly) but be assured of continuous supply.

The third source of income that is related to the distillery is León's liquor store on Tolimán's main town square. The store is operated by León's niece, and is certainly a modest gold mine.³⁶ The main product sold -next to all sorts of tequila, rum and brandy- is, of course, León's own *mezcal* (other brands are also carried in case dissenters drop by). The store has a license to sell cigarettes and beer, and also functions as an official ticket outlet for Autocamiones del Pacífico -the only bus company in town.³⁷

Apart from this vertical expansion of activities, León has also diversified the range of his projects to include agriculture. The resources that have to be mobilized to this effect are very heterogeneous. For example, León may access land through renting and sharecropping agreements -although he himself owns a six-hectare, irrigated plot that permits year-round production. The extent in which land is rented or sharecropped with others is a function of the type of crop to be cultivated. To give an example: if León's connections at Guadalajara's Central Market expect that chilies will fetch a good price that year, then a tract of well-drained, rainfed land is sought -which is not a difficult undertaking because of the little demand for this type of field in the barren area surrounding Tolimán. In the case of chilies (as well as tomatillos) the total area León rents or sharecrops is rarely more than 10 hectares. This limit is not set by financial or labour considerations, but is a built-in safety mechanism to skirt economic adversity in case the crop drowns or dries up. In the case of horticultural products such as tomatoes or watermelons irrigated fields are sought. However, this type of plot is more difficult to come by because of the higher demand for it (watermelons and tomatoes are potentially good profit makers) - although a few boxes of *mezcal* may give comparative advantage over competitors. At any rate, León is never able to rent or sharecrop more than a total of four hectares of irrigated land, mostly from different owners. Since the market for irrigated plots is virtually 'closed', the only way to access them is through kinship or *compadrazgo* relations. León only utilizes this last type of relation to rent or sharecrop land. The type of agreement reached between him and the owner varies a lot, and may entail negotiations about payment before or

after the harvest, in cash or in kind (*mezcal*; a part of the harvest), the amount of labour and inputs to be brought into the venture by each party in case of sharecropping, and so on.

In what way does agriculture support León's *mezcal* business? Apart from the agaves that he sowed recently, the crops León cultivates cannot be utilized directly in the production of *mezcal*, but need to be detoured. Thus, in order to supplement the activities of the distillery, agricultural produce has first to be converted into effective resources. This may or may not be money. The final form that agricultural produce takes before it enters into the orbit of *mezcal* is not something León knows beforehand. Rather, it is the outcome of struggles and negotiations.

Let me elaborate on this through the example of a new crop, watermelons. Why did León choose this crop? The reason is straightforward: ever since his field had been incorporated into the irrigation unit in 1989, León had only sown tomatoes. The first season he lost money on it due to low market prices. The second year the figures swung over to his side, but in the third and fourth seasons he again suffered ill-fortune. Speculating on a tip given to him by Octavio - a befriended, medium-size exporter of horticultural products - and tired of the ups and downs of the tomato market, León decided to bet on watermelons. How did he organize production? First, he chose two different locations: his own irrigated plot, as well as two additional hectares which he rented in the contiguous *ejido* of San Pedro Toxín from a *compadre* of his father. On his own land, he entered into a sharecropping agreement with Julio, who lived with his family in León's cottage to watch over the property. The agreement entailed that León would furnish land and water, as well as fertilizers, pesticides and insecticides - which he traded in part for *mezcal* in neighbouring San Gabriel. His associate, on his part, would put the watermelon seed and his labour into the venture. With his *compadre* in San Pedro a sharecropping deal was agreed upon. The terms of the partnership however were different. Apart from paying for the rent of the land (both in cash and in *mezcal*), León was supposed to contribute the seed (which he exchanged for *mezcal* with his other associate), while his counterpart agreed to provide fertilizers, pesticide, herbicide, water as well as his labour. In both cases profits, if any, would be split between them.

Halfway through the season it became apparent that the agreement in San Pedro Toxín was unsatisfactory. For some reason or another, León's partner failed to fertilize the crop properly and hence the harvest was a financial setback -in fact León only recovered his initial investment (USD 1,000). On his own plot, however, business was healthier, and the watermelons were harvested on three different occasions: 27 tons at the first harvest, 21 tons at the second, and another 21 tons at the third. The product was sold to a wholesaler from Guadalajara's Central Market who promised to pay USD 0.33 per kilo for the first harvest, USD 0.30 for the

second, and USD 0.27 for the last. In total, the wholesaler owed León and his partner USD 10,000 each. As payment, the merchant sent León three cheques worth USD 3,300 each, to be cashed at the CREMI bank in Guzmán in intervals of 2 weeks, on specific dates. The cheques, however, bounced and León spent the better part of a month chasing down the wholesaler. Finally, the wholesaler deposited the first USD 3,300 in León's bank account. The remainder, the merchant offered, could be settled by trading in his luxury sedan (a '88 Grand Marquis) for the two cheques. León did not accept this offer on the grounds that a passenger car was of no use to him. After some negotiations, the wholesaler placated León by furnishing him with a 1984 Dodge pick-up truck.³⁸

What lessons can be drawn from this example? How do León's agricultural activities relate to his *mezcal* business? For one thing, watermelons certainly mediate between León and the collective of humans and nonhumans that need to be enrolled in order to make and sell *mezcal*. First, watermelons are converted into cheques. These are later transformed into a pick-up which in turn translates the relationship between León and one of his distributors. In other terminology: the network described by watermelons (sharecropping agreements, agricultural implements and inputs, water, land) is first black-boxed. When it opens up again, it shows different actants: cheques, wholesalers, banks. At a later stage, the same box is reopened -to show a pick-up, distributing strategies, organizing practices. Can one pull watermelons and *mezcal* distributors apart? That would be quite an insensitive proposition -as perverse maybe as insinuating that *mezcal* does not mediate in the organization of León's agricultural activities. This, at any rate, would be an argument utilized by a good many social scientists - a form of reasoning that León, in his practice, proves untenable by associating (and exchanging!) a world composed of fertilizers, labour, pesticides, watermelon seeds, or land, with a whole network that has *mezcal* as its effect.

The same point can be made for the last one of León's various entrepreneurial activities: brick-trading. His engagement in this line of business goes back to the mid-1980s, when he inherited the six-hectare plot that is now irrigated. With the river nearby, León decided to give brick-making a try since it filled a gap in the market. To this effect all necessary implements and a skilled craftsman had to be found. The latter proved difficult, but by 1987 the first bricks were rolling out of the brick shop. However, it soon turned out that the composition of the soil was inappropriate and the undertaking was put to rest. The idea of selling bricks in Tolimán however remained, and so it was that León contacted brickmakers from El Grullo -the home town of his wife, 60km away. These were willing to transport bricks to Tolimán for a reasonable price and, after some mathematics, León calculated that it was cheaper to have bricks come from El Grullo than to import them from Sayula or Ciudad

Guzmán - where most Tolimenses wanting to build bought their bricks.³⁹ And so it was that a modest brick-selling business grew. This is all very well. But how does it relate, in practice, to *mezcal* production? For example, León buys a thousand bricks for USD 0.07 a piece in El Grullo. This amount, however, is never paid in cash. It is bartered for 12-litre boxes of 'commercial' *mezcal* on the basis of the market value of *mezcal* at production cost (USD 10 for a box). León then pays a lorry driver (a neighbour of the brickmaker) USD 100 in cash to transport 3,000 bricks (the lorry's capacity) to Tolimán, where they are sold for USD 0.15 each. Translating the transaction into monetary terms, the deal is fabulous for León: on each brick-trip, the potential income of 23 boxes of *mezcal* is converted into the income that he would obtain from the sale of 35 boxes through the intermediation of brickmakers, USD 100 for the transport, and clients. In this way bricks, so to speak, add flexibility to León's *mezcal* enterprise by, on the one hand, offering him the possibility to market his product through an alternative channel. On the other hand, the profit that is made from bricks (but through *mezcal*!) helps León to absorb the ups and downs that are inherent to the market for *mezcal* (eg. volatile demand during the agricultural cycle).

Conclusion

In this Chapter, I developed a case study on the production of *mezcal* and showed how, to succeed in selling a product one makes, it was expedient for León to a) create potential customers and b) control them at a distance (Latour 1987). Both steps were achieved through the mobilization of a variety of heterogeneous actors on a number of different fronts.

Like in the cases of Carlos, Chabelo, and David and Chela, León had to assemble a local and a global network to support his activities. The global network of his project consisted of consumers, local authorities, fellow *mezcal* producers, and a host of actors involved in his parallel activities. By obtaining the resources from these actors, León's project successfully built a negotiation space within which it could construct a local network geared to satisfying the demands and expectations coming from the global network. Thus, for example, León's project was able to control consumers of its *mezcal* by at the same time controlling the local network de-scribed by the liquor. In effect, then, the project became an obligatory point of passage. Also, the degree of convergence between the actors of the local and the global network was relatively high. That is, León successfully mobilized heterogeneous actors into playing the roles set out for them in his initial problematization - to enlarge his market. This he successfully achieved, since consumers liked the taste of his *mezcal* cooked in an innovative way. To this end, the project had to rearrange - translate - a host of other actors either by incorporating them, or by

keeping them at bay. The project, though, never managed to add any local rules to the general ones affecting the relations between producers of *mezcal* and their customers, or those between producers, distributors, and suppliers of inputs. Nevertheless, the project achieved a momentum of its own, as decisions to invest in certain areas were irreversible and shaped future paths of action.

Notes

1. *Mezcal* is a popular and widespread distilled drink, *tequila* being its best known variety. Basically, to make *mezcal*, mature agaves between six and ten years of age are first harvested. The hearts of the agaves are then taken to a *taverna* or distillery, where they are split, cooked and threshed. After this, the debris is put into a basin of water and left to ferment for a week to ten days. The fermented product is then distilled once or twice, depending on the quality of the *mezcal*. The final product is a potent liquor ranging between 35° and 55°GL, which is eventually bottled and marketed - or sold in bulk as in the case of *tequila* sent to the US.

2. The way in which León's grandfather snatched away the distillery from the legal tenant is still remembered with hilarity to this day. Although anecdotal, it points to the devious ways utilized by *mezcal* entrepreneurs to keep their adversaries at bay. It seems that, once "El Abuelo" (as León's grandfather is referred to) wanted to operate the distillery again, he sent some of his men to play cards with the tenant. As the latter got drunk, "El Abuelo"s men cunningly plucked the ownership document from his trousers. A few days later, when "El Abuelo" dropped by the *taverna*, the tenant informed him about his latest expansion plans. "El Abuelo" stopped him short, countering that he had other plans for the distillery, now that he wanted to work it himself again. The tenant protested, and pointed to the document which was in his hands. "El Abuelo" replied that he did not know about any written piece of evidence suggesting the tenant could operate the place indefinitely, and politely asked for some proof of the alleged document. Since the tenant could no longer produce the paperwork, "El Abuelo" had him removed through a restraining order in a matter of days. Interestingly, many people with whom I interacted in Tolimán respected this type of "cheating", which somehow has the effect of adding to the mystical character of *mezcal*.

3. This was largely an effect (or so I was told) of the construction, in 1974, of a highway connecting Tonaya with Autlán and Ciudad Guzmán.

4. According to the bottle stickers, Rodolfo made a potent, unadulterated *mezcal* of 50°GL. Whether or not consumers were able to enjoy what they were paying for, of course, is a matter of discussion. For example, one of the

sons of Rodolfo is still remembered in El Grullo for cheating practices involving the alcohol percentage of the *mezcal* he sold.

5. The altercation went so far that one of León's brothers, Rigoberto, succeeded in sending his eldest brother José to jail in neighbouring San Gabriel - on the grounds that he had committed a fraud. A surrealist touch to the whole affair was that José could leave jail by day to play billiards and cards in San Gabriel's main square. By night though he had to sleep in his cell.

6. Nor, for that matter, with a part of his maternal family. Indeed, family disputes run deep - not least because of heritage issues.

7. There seems to be a relationship between the knowledge about *vino* (*mezcal*, *tequila*) and the colour of *mezcal* bought. For example, customers living in the immediacy of producer centres generally acknowledge that aged, yellow *mezcal añejo* has been tampered with, unless it is expensive, and therefore prefer white *mezcal* that comes directly from the still. On the contrary, consumers that are more distant from the production centres are often 'fooled' into believing that yellow *mezcal* is indeed aged in oak barrels (and thus made to pay a higher price for the addition of a dye).

8. From September through February patron-saint *fiestas* and *funciones* (rodeo-like happenings complete with cock-fighting and dancing) are commonplace all over Mexico. They are occasions to spend. The first type of celebrations are not always known as opportunities for collective (and excessive) drinking. *Funciones* however offer young and old, man and woman a chance to openly enjoy a drunk. Other sales peaks occur during the national holidays in September, Christmas, New Year's Eve, and Carnival.

9. From the end of April to June. During the hot season (before the rains arrive) people prefer to drink cold beer. Of course, 'hot' and 'cold' are relative categories: on the coastal areas *mezcal* is never really a favoured drink, while in the high *Sierra* (mountains) its consumption is more-or-less stable year-round.

10. From the end of May through September. Of course, there may be considerable variation concerning the length of this period. Whether or not less *mezcal* is consumed during the agricultural cycle depends on the amount of cash at the rural population's disposal. This is, in turn, a function of the costs entailed in the specific type of agriculture practiced, the presence of irrigation, the type of crops, arrangements made to sell one's crop(s), the amount borrowed to sow, etc.

11. This is readily acknowledged by León who blames this situation on the nonexistence of a NOM (*Norma Oficial Mexicana*) or standard to calibrate the quality of *mezcal*.

12. The term *vino* is generally used to refer to the cheaper, often downgraded, types of *mezcal*. See Chapter Eight for a description of how this downgraded, 'commercial' type of *mezcal* is made.

13. The prime material of *mezcal* referred to as *tequila* is cooked in so-called *calderas* (cauldrons). Most larger *mezcal* producers utilize these to cook their agaves. The cauldron is a hermetically sealed room that may contain as much as 30 tons of agaves. Compressed steam is injected into this room in order to convert the acids of the agave into fermentable sugars through hydrolysis. The main advantage of the cauldron over the traditional *olla* is that larger amounts of agave may be cooked in a shorter timespan (22 hours instead of 72). Taste however is altered through this process, as *mezcal* loses its characteristic "woody" taste. Since large *tequila* factories also utilize this method for cooking agaves, the taste of *mezcal* obtained from agaves cooked in cauldron resembles that of *tequila*. Hence the name *tequila* for this type of *mezcal*.

14. The association of these terms with a specific *mezcal* is, as I show in Chapter Eight, always open to negotiation. Thus a little known brand sold at an astronomical price may be categorized as being *mezcal puro* even if it is of inferior quality. It all depends on what is brought to bear on the definition of the product: the text on the sticker; the type and presentation of the bottle; the colour of the liquor; its taste; its propensity to make long lasting bubbles when shaken, and so on.

15. Unlike a cauldron where agaves are cooked in 20-22 hours, León's setup does not diminish cooking time. The main advantage of the innovation, though, is that taste is not affected because its agaves are still cooked with wood, and not with steam. This way, León's product retains *mezcal*'s characteristic, strong flavour.

16. The amount of time agaves should be cooked varies between 60-72 hours. In practice, this range is problematic: if cooked too long agaves start burning -thus affecting flavour. In the *olla* setup, the exact time agaves should be cooked is a matter of knowledge. For instance, what is the relationship between mature and immature agaves in the *olla*? (mature agaves take longer to hydrolyse; immature ones are cooked more quickly).

17. This specific problem was solved by installing a valve on top of the oven through which water could be added. The water would find its way to the hot stones and evaporate, thus inhibiting the burning of *mezcales*.

18. It would be the same to turn this question and ask: what have León's rivals done to include him into their projects?

19. The type of information that is considered crucial refers to the "contacts" needed to buy agaves, the "recipes" used to obtain the final product, as well as the chemical "secrets" mobilized to "improve" taste.

20. This in fact allowed ground for negotiating commission on sales: León's distributors were indeed a little better off than distributors working for other *mezcal* producers.

21. From an entrepreneurial point of view, this strategy was in itself a beneficial one: with a crop density of 5,000 plants per hectare, a growing period of 6 years, and an average of 30 kilograms per agave at harvest time, a gross profit (that is, without labour and transport costs) of US \$5,000 per year/hectare is possible. In addition, the seedlings of the agave plant may be sold or utilized - a very labour-intensive activity though. If sold, profit rates increase in the order of 100% per hectare/year. With fertilization and irrigation other (higher) profit rates apply, although one has to take into account a relative loss in the sugar content of the agaves cultivated this way.

22. Prices at the gate of the distillery are the same for all, and customer price is set by León. So, for example, the price of a box of 12 litres of commercial *mezcal* for consumers is N\$35 (USD 11.75), while León wants N\$30 (USD 10) back from his distributors upon their return. Of course, prices are always open to negotiation, and often the profit margins for distributors average way above the "official" 15%. This however mainly applies to independent distributors who have to carry the full burden of their operational costs and often visit more remote places.

23. The distillery has a daily output of close to 300 liters of 'commercial *mezcal*' and a little over 40 liters of 'special' *mezcal*.

24. León's strategy in hiring Sergio backfired, however. When I left Jalisco - one year after Sergio had been assigned to the job - the uncle already owed León USD 7,000 in arrears.

25. Barely half a year after becoming *compadres* León bought half a hectare of land in El Izote, next to a National Park and midway between Guzmán and Tolimán. Soon after, Roberto started building a small ranch on it to enjoy barbecues and pristine mountain air together with León and their friends.

26. This move was preceded by a great many hesitations, the main one being that Pablo considered it inappropriate to ask León such a thing. After all, he reckoned, "León is of another calibre; he is rich, and I'm only a poor bugger. How can I ask this of him? It is clearly out of place".

27. León was in fact the first mezcal producer to obtain alcohol from the Tamazula sugar cane distillery. Prior to this most alcohol came from Guadalajara because all of Tamazula's production was bought well in advance by Bacardi.

28. Most agaves utilized by León are of the *lineño* variety. However, sometimes fully grown exemplars of wild varieties are added to make a blend.

29. The length of fermentation is a function of temperature. At 28-30°C all sugars will ferment in 72 hours. Temperature in the fermentation tank however is lower, and in the colder months (November through February) the contents of a tank may take between 12 and 18 days to be fully fermented.

30. Some days, however, both men do not finish before 7-8pm. This depends, amongst other factors, on the initial temperature of the cauldron in the morning as well as on the distillation speed. Distillation speed itself is a function of the gas pressure of the burner. In order to increase pressure, hot water exiting the still is used to warm up the 30-litre gas cylinders. Depending on the outside temperature, two to two-and-a-half cylinders are used each day.

31. This filtering needs to be done because sometimes the still is too hot and thus loses some particles of its copper plating; sometimes there may only be some dust particles from the jerrycans into which the mezcal is collected.

32. Although not new, this strategy has only become interesting for mezcal producers in the last 5 years. Before, prices of mezcal varieties of agaves (in contrast to tequila varieties) were so low that production thereof was economically unattractive.

33. Traditionally a baptismal godfather is an important character with the means to bring up his godchild in case some mischief should fall upon his parents. Hence a *padrino de bautizo* is nearly always somebody with a relatively high economic status. Since a labourer of León can never provide the education that is considered suitable for a child of his boss, the move was considered troublesome in this respect.

34. Sometimes an agave middleman may have bought a product which still needs to be harvested. In such situations it is not uncommon for León to provide the labour. This condition often emerges at the beginning of the rainy season when everybody is busy attending their own or someone else's plots, or during maize harvest time.

35. The sale of 96% alcohol to consumers is illegal, but difficult to check by the authorities (if they are interested in eradicating it in the first place). The drink is mainly utilized for *canelitas* (hot cinnamon tea in the early morning),

medicinal purposes, and to get drunk. This type of alcohol is very popular among poor alcoholics since it produces more "bang for the buck".

36. León calculated that the liquor store produced a net profit of USD 11,000 - 12,000 on a yearly basis.

37. León managed to become the local representative of the company, and makes 2% on the fare of all passengers that crowd the five daily trips to San Gabriel, Ciudad Guzmán and Guadalajara. This activity grants him an average gross monthly income of USD 240.

38. The value of the pick-up was estimated at USD 4,000 but León obtained it on an exchange basis of USD 3,700. The remaining USD 2,900 of the debt would be paid at another date. Since these negotiations were going on at the time of my departure from the fieldwork area, I do not know whether León finally got his money or not. Neither do I know the fate of the cheques handed over to León's associate.

39. Tolimenses have always had closer contacts with Sayula and Guzmán than with Autlán and El Grullo. The mountain separating Tolimán from Sayula, and the volcanoes separating it from Guzmán, however, makes transport much more expensive.

CHAPTER 8

LOCALIZING CONSUMPTION, CONTEXTUALIZING PRODUCTION

Interfaces, Networks, and Mezcal

In Chapters Four through Seven I plotted a number of entrepreneurial projects against each other, and showed the different ways in which these may (or may not) become obligatory points of passage through the continuous work of localizing and contextualizing. However, one difficult theme that was developed only to a degree in these cases involved the relationship between the projects themselves and crucial actors in their global networks: namely, the consumers of their products and services. In this Chapter, I explore the relation between a project and its clients through a case study on the distribution of *mezcal* in Jalisco, Western Mexico. Before addressing the work needed to generate a suitable context and a content for this distribution project, I first sketch 'traditional' notions on the relationship between producers and consumers - most notably that of the binary opposition between them assumed in most theories on the circulation of commodities.

To distribute *mezcal* is to bring into circulation an object that *de-scribes* a productive domain. To talk about the distribution of *mezcal*, then, is to talk about its production as well. But it is also to talk about its consumption, for it would be senseless to deny that the production and distribution of *mezcal* do not *simultaneously* trace a needer. This very simple understanding, however, is not reflected in the vast literature on the production and consumption of food and drink. Indeed, in most readings the starting point is that of the separate *existence* of the categories of 'producer' and 'consumer'.

Of late this divide, this dualism, has been imported integrally into the debate on globalization processes (cf. Miller 1995). This move leads to the entrenchment of a position we all know too well. To summarise this position, the argument generally mobilised (cf. Bonanno 1994; McMichael and Buttel 1990) is based on the assumption that producers, consumers and distributors can be conceptualised as being different *in essence*, that is, they exist independently of how we perceive them, or of how they perceive themselves. Thus these authors tell us stories about the way in which producers transform resources into commodities, about how

these commodities circulate through the intervention of distributing agencies and, ultimately, about the final users of the product - with supply and demand mediating between the production/consumption poles. This essentialist and idealist position is, however, highly problematic. Why? Because it hides the everyday struggles, negotiations and accommodations going on between producers and consumers in defining each others' identities. Indeed, as the case below shows, producers, consumers and distributors pay little heed to the *a priori* distinctions made by sociologists or economists. Consumers (but also producers and distributors) simply do not care if their interactions are of a global or of a local character. Neither do they make a difference between the material world on the one hand, and society, politics, economy or religion on the other. In fact, their reality is much more messy and heterogeneous. In other words, by reducing the practice of *producing* and *consuming* to the analytic concepts of *production* and *consumption*, political economists make invisible the way in which producers and consumers relate to one another, bringing about their specific identities in the process.

I agree with Arce and Marsden (1994:3) when they suggest that we need to bypass traditional notions of the circulation of commodities and "... link more creatively [food] production, supply and consumption with a reappraised set of notions concerning food regimes and systems." In accordance with these authors, I question in this Chapter the pre-existence of a *duality* between consumers and producers that is de-linked from the practices that help shape the identities of both: A duality that is often treated asymmetrically, that is, that accords primacy to one side or other of the equation - thus automatically catapulting the idea that production drives consumption, or vice versa - as Miller (1995) suggests. Accordingly, my point of departure will be not to assume, *a priori*, that there exist driving and driven parties. This allows me to show that the distinction between producers and consumers is an emergent, relational one. In other words, I propose that the contrast between producers and consumers of *mezcal* can best be seen as an effect. An effect of the distribution of identities through the mobilization of a range of entities (both human and nonhuman) that are implicated in the production, consumption and, crucially, distribution of - in this case - *mezcal*.

This Chapter, then, aims to make visible the way in which the identities of producers and consumers of *mezcal* are simultaneously constructed. To do so, I emphasize the organising practices associated with the circulation of the liquor. To make my argument, I first introduce Pablo, an indepen-

dent *mezcal* distributor, who made bricks until 1987 when Benigno, owner of a *mezcal* distillery in El Grullo, solicited his services. Initially regarded by Pablo as a little gold mine, *mezcal* distribution allowed him to work only one day out of seven, buy a new pick-up truck, rent an adequate house, and start building a small cottage. In 1992, though, Pablo's new-born child fell ill for months, eventually dying. In the process, hospital bills sent Pablo into bankruptcy. In these months, cut-throat competition drastically decreased profit margins for independent *mezcal* distributors like Pablo. Hence, in order to keep his business afloat, Pablo needed to open up new markets in localities that were so-far unknown to him.

The main body of the first part of this Chapter provides an ethnographic account of this endeavour. The idea, here, is to give the reader an image of the *couleur locale*. I also try to make the reader familiar with some of the work, knowledge and skills involved in the construction of a network of controllable customers that will obey Pablo's main message: *buy from me!* As I show, this - otherwise unsuccessful - attempt involves the enrolment of a variety of people and things that are normally required for the operation of a *mezcal* trader's route. In the second part of the Chapter, I present an analytical framework that help one to sort out Pablo's localizing and contextualizing practices. Then, in a third part, I develop a number of vignettes that are built around the operation of an already established trade route along the road from El Grullo to Guadalajara. This leads me to explore a number of *interface* situations involving actors that are all busy trying to define each other's identities through the mediation of a diversity of heterogeneous resources - both present and far-away.

The Pacific Coast route

June 11th, 1993. It is a cold, damp morning, around four am. Pablo drives by my place and I jump into the cabin of his twenty year-old, American-made Chevy pick-up truck. We are on our way to 'try out' the Pacific Coast route of Jalisco for the second time. Accompanying us are 30 boxes of twelve-litre bottles of *mezcal* each, and 42 five-litre canisters of *mezcal*. On the first trip, three weeks ago, Pablo had been accompanied by his neighbour (an unemployed engineer). On that occasion, with the neighbour's money, Pablo had bought USD 650 worth of the liquor at

Benigno's distillery on the understanding that the profit would be split by half. Although the investment was recovered, the joint venture had not been fully satisfactory. Apparently, Pablo's neighbour had been in a great hurry to get to Puerto Vallarta on the first day, and wanted to be back in El Grullo on the second. This left little time to talk to all possible *tienda*, canteen and liquor store owners along the road. On our trip, we intend to do just this. This time, however, I am the one up-fronting the money for the *mezcal*.

We are on the road. Nothing but the mountains lie between us and the coast. On our way, I ask Pablo if he has ever sold *mezcal* in the places shown on the some of the scarce exit signs: Villa de Purificación, Cuautitlán, Pabelo. Pablo:

"No way. Too dangerous. It's full of drug traffickers. Robbers all over the place! I'm married and my wife has children..."

We climb and descend the winding road for two hours in the dark. *La cobija de los pobres* (the poor's blanket, as the sun is often called) hits us in the face at the intersection with the Pacific Coast Highway. Tourist-filled Barra de Navidad and Melaque lie ahead of us, but Pablo decides to head towards Puerto Vallarta instead, leaving the bathing resorts for the return trip. We make our first stop at 'Villa Polinesia', a thriving bus-stop/restaurant annex liquor store at the cross-roads of the coastal highway and a track connecting to the chique *Club Med*. After breakfast, Pablo asks the lady in charge of the place if there is any need for *Cordobés* - the brand we sell. Alas, the owner of the place is not in and she cannot make a decision on her own. First try, first miss. But the incident does not rock our boat. With a full stomach and a high *esprit de corps* we head for the first major place on our route: Tomatlán. Beer and liquor stores dot the road, but we pay no heed to them now:

- "*We will pay those bastards a visit on our way back*" boasts Pablo in belittlement. "*Tomatlán, that'll be our lucky spot today!*".

Tomatlán. Pablo had set his mind on it.

We arrive in Tomatlán. Both sides of the main street are strewn with liquor stores heavily protected by steel bars. Pablo stops in front of one of

them. Three weeks ago his neighbour had managed to sell four boxes (48 litres) of *mezcal* here. And with a profit: on that occasion, the client paid USD 16 per box (Pablo bought each box at Benigno's for USD 10). Once inside the store, we get a forecast of things to come: the shelf is full of bottles - Benigno's brand. The client informs us that the brand is not selling well: he has only sold one box so far. We walk to the next shop. The owner is not in, and the lady at the cash register is not supposed to do the restocking. On the shelf we see the competition's product (*El Mezcalito* and *Tonayán*.) Pablo talks her into buying some *Cordobés*, and after a lengthy negotiation in which she is clearly not at ease because of my presence (a tall, blond foreigner), she agrees to buy six one-litre bottles. At USD 1.70 each, a 50%-profit over cost-price. We visit two more shop owners who had bought some *Cordobés* three weeks ago, but again we are confronted with the story we heard before: the brand does not sell well. Pablo concludes that *Tonayán* and *El Mezcalito* are probably undercutting the price. We then try our luck in the centre of town, which radiates a flourishing commercial atmosphere. To no avail. Time after time we are told either one of four stories: "the owner is away, I cannot make this decision"; "the bottles you left last time haven't sold"; "we already have plenty of *Tonayán* and *El Mezcalito*"; "drop by on your way out of town, I have no cash now"...

Fearing the worst, we pay a visit to the red light district. It is still before noon, and most bars are closed. One of them seems open, judging from the screeching music coming out of the narrow entrance door. We enter. Once inside, the madam has us drink coffee with her. Little by little the main room/dancing floor/bar comes alive. Before we finish our coffee, the urine-smell filled place is crowded with women of easy virtue coming out of their rooms and complaining of hangovers. Meanwhile, children wash clothes and blankets and an elderly woman cooks *menudo* (cooked tripe)... But here, too, we seem to be losing our time: the madam tells us that her customers stick to brandy and rum. "No *mezcal*, sorry."

All other canteens seem deserted. A middle-aged man, still drunk from last night's feasting, intercepts us in front of the Chevy:

- "Do you sell vino?"¹

- "Of course we do!"

We show him our ware, and he throws an eye on a five-litre gallon. It's flashy sticker tells would-be customers that it is of 48° GL (although I could never myself measure more than 36° GL with my alcoholometer) and made from 100% agaves. The man, pointing to a plastic bottle containing five litres of *mezcal*:

- *"How much for that fat lady"*

- *"I'll give it to you cheap because you're our first customer today. Thirty pesos, plus five for the bottle [USD 11.50] and it's all yours!"*

The man does not negotiate the price Pablo suggests, and winds up paying for his embriagated condition (Pablo only pays USD 2.60 for this type of *mezcal* - which is actually more of a mixture of water, dyes, and alcohol. I later tell Pablo that the price seems somewhat unfair to me:

- *"Inside the brothel he'd paid three times that!"*

Despite this last episode, by now our morale is pretty low. It is already clear to us that *Tonayán* and *El Mezcalito's* distributors 'own' the route. The task ahead of us is to 'break open' their route. We decide to leave Tomatlán and come back the next day or the day thereafter to entice absentee owners into buying some liquor.

We are now on our way to Puerto Vallarta. I now take over command of the gasguzzler because Pablo is afraid of the Highway Patrol in this unknown territory. The reason: his driver's license expired ten years ago²... We refill the Chevy as we again hit the Pacific Coast highway, and I mention the pick-up's thirsty habit (nearly 53 litres for a total of 200 kilometres!) Pablo:

"Yes a Japanese truck is more economical. But then you cannot load as much on it and you have to suffer every time you climb a hill in first gear. But the truth is that Benigno owns the truck's papers because I still owe him four million [USD 1,300] for the truck and some other four million for *vino*. So he's got me hooked. I cannot sell the truck because I don't have the papers. And I can't start working for somebody else because then Benigno will just start charging interest on all I owe him..."

I am not surprised. Lending money and selling on credit is common among *mezcal* producers, and one way of making sure distributors stay

'loyal' to them is precisely through this type of practices. Benigno, for example, has six distributors. They all pay cash for the liquor they take with them on their selling routes. Each distributor has a different route, and all are supposed to sell *Cordobés* only. In return, Benigno - who does not pay his distributors' social security, SAR³ or INFONAVIT⁴ - provides the registered invoices and the special permits needed to transport alcohol (and which are needed in case of being controlled by police or inspectors), in fact hiding his distributors' activities from *Hacienda* (Ministry of Taxes). This is generally seen as a 'favour' by his distributors, who would otherwise have to apply for the special permit themselves and register at *Hacienda* as independent traders - thus ending up paying taxes. The invoices, on their part, are always deflated and serve their purpose for multiple occasions. On this particular trip, for example, we carried a three-week old invoice mentioning USD 210 worth of *mezcal*, whereas the merchandise we carried was worth the USD 650 mentioned above.

As we talk about these issues we reach Pino Suárez, a small hamlet where Pablo sold six boxes to a 'good' client on his prior trip. We go to his store, only to find out that just two boxes have sold. Pablo makes awkward faces while swearing about our bad luck. The owner - who seems to be sympathetic towards us - agrees to buy one more box for USD 16. We thus make more than 50% profit. It is clear, however, that we need not come back in a month or so. We are now in a really bad mood. This, and the mounting heat, make Pablo change plans drastically: we are returning to El Grullo. The idea of opening a 'new' market in this area seems unfeasible to him. Ten kilometres and a dozen or so liquor stores further, we become more laconic. Our anger subsides and we decide to keep on trying. Thus we enter the road that leads to the beautiful beaches of Pérula. Our luck seems to turn when we stop at the first and only store. There, the wife of the owner agrees to buy two boxes at USD 16 each. More importantly, she provides some precious information: her husband sometimes buys up to fifty boxes of *Tonayán* and *El Mezcalito* in one go. The reason for this seems to be that heavy drinking at burials is becoming a hype. And, since her husband's store is the only game in town, people come to stock with him.

This is good news. After all, if Pablo can win her husband over on a next visit then the trip to Pérula alone would make the route worthwhile. In a good mood now, we invite ourselves to delicious oysters, shrimps and some beer on the beach, underneath the shade of a *palapa*. We then continue our trip back to El Grullo and reach the *ejido* of Venustiano Carranza. There, in a shop where Pablo sold two boxes

three weeks ago, we are given less optimistic information. As the owner explains, some of his customers bought *Cordobés* once but returned to drinking *Tonayán*. Besides, *Tonayán* delivers at USD 12 per box of twelve litres - substantially less than Pablo's price for *Cordobés*. Without even bargaining, we go back to the Chevy. Pablo turns on the engine and kicks the accelerator, in the meantime swearing against Federico, the producer of *Tonayán*:

"Son-of-a-bitch! Federico has his distributors drive his trucks for a salary! So now he can sell for the same fucking low price everywhere... I tell you that it's not nice to go around like this. It's humiliating! I don't like to beg anybody to buy my *vino*. OK, I guess it's only a matter of people getting used to *Cordobés*' taste. But how can they get used to it if I don't sell a damn?"

While swearing and musing about the future of *mezcal*, we arrive at the intersection where the sun greeted us this morning. Now the Sun King is about to leave us. I ask Pablo whether we shall enter Barra de Navidad and Melaque. "I'm tired. Let's go home". I press on - after all I need to get my investment back. But Pablo argues that we are not dressed appropriately for the occasion and people will start making fun at us: "*Somos pobres y vivimos a la orilla*" [We are poor and live on the edge of town]. I know Pablo and I understand his reluctance. Coming from a provincial town, he feels inferior in the presence of cosmopolitan tourists spending huge amounts of money in trendy bars, shopkeepers casually dressed in expensive beach wear... I notice that he is angry with himself now. By the time we reach El Grullo I have already made up the list of sales and expenses. Clearly, we have lost money on today's enterprise. Once at home, Pablo tries to cheer me up with a drink, stating that

"Para todo mal, mezcal. Para todo bien, también."

Questions and concepts

The foregoing narrative, of course, begs the question of how to interpret it. Is the account merely a tool to make clear to you that opening up a new market is not a straightforward activity? Is it an instrument to display

the materially heterogeneous character of a trade route? The answer is: both. So, on the one hand, I have acquainted you with the heterogeneous elements - both social and technical - that inhabit a *mezcal* trader's world. These elements seem to be hostile to Pablo's efforts to expand his business, that is, they cannot easily be aligned and converted into trustworthy, controllable allies. Thus the route is replete with dangerous drug traffickers, recalcitrant shop owners not wanting to buy Pablo's brand, police officers preying on invalid documents of all sorts, hesitant madams, cosmopolitan tourists, aggressive competitors selling cheaper *mezcal*, brittle glass bottles that may break when confronted with potholes, burials, expensive gasguzzlers that cost a fortune to operate.

But what should we make of these materially heterogeneous elements peacefully coexisting with one another? What should we make of Pablo's efforts to reconfigure these elements and bring about reliable clients? Do we start from the perspective of the laws of accumulation and reduce Pablo's relative failure to sell *mezcal* to social or economic factors alone? Would it be sensible to bracket out the things that make up a potential trade route? My answer to this is blunt: no!

I have another proposal. I suggest that one does not start by assuming that producers and consumers exist as fixed entities. Rather, I suggest that both are constructed through the mediation of *mezcal* - an object which may best be addressed by what Latour (1993) coins a 'sociotechnical hybrid': a mixture of people and things that are not strictly the product of either 'the social' or 'the technological'. In other words, the practice of establishing a distribution network entails referring to social, technical, and discursive elements that cross the boundaries of established disciplines. But it is also about transgressing the (analytical) boundaries between consumers and producers. For whatever Pablo does, he is going to and fro between them. And so will I when I take you with me and follow Pablo on his next trip. Thus when I talk about the work, the skills, or the knowledge necessary to distribute *mezcal*, I talk about the heterogeneous materials that cross the boundaries between producers and consumers, constituting a common space between them in the process. A common space in which, following Callon (1991:34-5) "... actors define one another in interaction - [through] the intermediaries that they put into circulation."

For methodological reasons, by *interaction* I understand *interaction in interface situations*. Although I retain much of Long's (1989) original formulation of interface⁵, I define 'interaction in an interface situation' as the process in which an actor X (in our case, Pablo) attempts to localize

and define an actor Y (clients) through an intermediary Z (*mezcal*).⁶ In other words, interfaces stand for relationships, while the content of these relationships is inscribed in intermediaries. In this definition, interfaces, interactions and intermediaries are thus relational concepts.

With this definition in mind, I aim to develop the argument that 'production' and 'consumption' cannot be conceived as separate entities. Rather, I maintain that producer and consumer identities are inscribed in the intermediaries that circulate between them. Put differently, I argue that the identities of consumers and producers can be seen as an effect of organising the circulation of intermediaries. Producing and consuming are thus an effect of practice - the practice of defining what is a producer, and what is a consumer.

Starting from such a perspective, of course, entails asking an altogether different set of questions. Thus we should not any more be interested in why Pablo succeeds or fails in selling *mezcal*, or who or what should be held responsible for it. Rather, the question becomes that of *how* all the heterogeneous elements that make up a network of reliable customers are held together, thereby enabling the emergence of a trade route. (Clearly, the corollary question of *how* it is that these elements resist recruitment, thereby limiting Pablo's endeavours, is equally incumbent.) The problem however is that one does not normally 'see' this activity of 'holding together' all these bits and pieces. Why is it so difficult to talk in terms of these compositions? Why do social scientists speak of producers and consumers? How is it that we prefer to make reference to punctualizations, to black-boxed producers and consumers, instead of describing the complexities involved in their construction? This is because, in practice, complex action may become routinized. Indeed, black boxes such as 'production decisions' or 'consumer tastes' are, metaphorically speaking, like façades hiding complex dynamics of their own. For example, not all entities involved in exchange (Pablo, *mezcal*, consumers) need to be defined all over again in each routinized exchange encounter. All that matters is that the exchange works. Once simplified, exchange - or, rather, the network of elements which bring about the exchange - can be assumed to act as a disengaged block. Thus apparently simple elements - Pablo, *mezcal*, bottles, consumers, to name a few - may, if only for practical purposes, masquerade the *collectif* of which they are an effect.⁷

So how can we open up these punctualized compositions, these black-boxed networks? My answer is: through *de-description*, through the opening up, the exposition, of the *trajectories* of networks that end up

being black-boxed. As I stated in Chapter Two, this means that one has to follow Pablo in his efforts to define - to localize and contextualize - the characteristics of his objects (clients, *mezcal*, producers). It means that we have to follow Pablo and see how he attributes actors with specific tastes and competences. Indeed, a large part of Pablo's work consists in inscribing these attributions into the *mezcal* he brings into circulation.

How to make sense of what you have just read? Let us once more follow Pablo - this time along one of his established routes: from El Grullo all the way to Acatlán and back via Soyatlán. Let us again climb into the big-block Chevy. But let us not take off in the company of Pablo and his embriagating *mezcal* only. This time around, we will take some unusual passengers with us: the concepts and principles of actor-network theory. Will we see them, at the end of the trip, as useful allies that enable us to say something substantial about the character of Pablo's enterprise? Will they help us to expose the social and technical elements Pablo brings to bear at every interface situation he is involved in? Can they tell us something about the work, the skills, and the knowledge needed to hold together the hybrid elements of the trade route - effectuating, *en passant*, producers and consumers?

Interfaces: networks and façades

Saturday morning, around seven a.m. Pablo honks in front of my place. I get my jacket, my notebook and my wallet (one never knows with Pablo) and get into the truck. As I say hello to him, I quickly inspect the contents of the cargo area. The idea crosses my mind that he was not able to buy as much *mezcal* as the 'normal' Saturday route would demand. Indeed, after automatically asking about my health and that of my family, Pablo instantly starts complaining:

"Let's see what destiny has to offer us today. I asked my brother-in-law Antonio for some pesos but he only co-operated with one hundred. And then Alejo didn't have more than two-fifty... Nooo, Gerardo, this business is slowly going down. Imagine, I even had to ask my wife for another hundred!"

We stop by the bank to see if I can draw some money from the teller machine. But I have to deceive Pablo: a line is probably down, so I cannot contribute this time. We have to make do with what we have: 31 five-litre canisters, 5 twelve-litre boxes of *Cordobés* and two boxes of a new brand, *Reserva del Abuelo*.

Around eight-fifteen. We reach the summit of the Sierra. From now on we will not have to climb long, steep stretches any more. That is a comfortable thought, since it would certainly not be the first time that the yellow gasguzzler would abandon us: some part of the engine does not seem to like arduous, long slopes very much. Three more curves and we make the obliged stop at the little chapel of the *Virgen de Guadalupe*, the patron saint of El Grullo. Pablo lits a candle and deposits some coins in front of the Lady. We say a little prayer, hats in hands, then go. Enough *mezcal* or not: today's enterprise will at least be a blessed one. We drive by Unión de Tula, the first larger town on our way. Pablo has no customers here because this is the exclusive domain of the district's tax inspector, who has a local monopoly on the distribution of *Tonayán*: potential clients of other brands risk an 'unexpected' (and certainly not inconsequential) 'visit' from him. To quiet complaints - and luckily for locals - the tax inspector 'only' makes 15% profit on each bottle he sells...

By ten-thirty we reach our initial destination, San Martín Hidalgo. We go straight to our first customer, an older man owning a shabby canteen just around the corner from the main colonial church. We find him leaning against the outside wall of his property, as if expecting us. We greet him. After some words about last night's rain, Pablo jokingly asks:

- "how many thousands of litres will it be today?"

- "Only one box of *Cordobés*. And give me four canisters. One white, three yellow."⁸

Pablo and I unload the *mezcal* and carry it inside the little canteen. Its walls are plastered with blonde pin-up girls. In one corner, there is a large fridge for the beer. On the opposite side, a small shelf where a half dozen plastic *mezcal* bottles of different brands stand on display next to an equal amount of football trophies. The finishing touch is provided by a set of four metal chairs and a corresponding table (all with a beer logo engraved on them), some ten crates of Coca-Cola and Seven-Up, and an ice chest. Pablo empties the content of the glass canisters into four plastic bottles furnished by the client.⁹ In a quasi-ritualistic way, Pablo asks:

- "You sure that'll be it, my friend?"
- "Well... I don't know. It hasn't stopped raining so the harvest will be late this time. You see, farmers have no money right now..."
- "People prefer vino to beer when its cold and dreary like this..."
- "... yes, but then there's the crisis..."
- "Yes, there's no money. I know. These are hard times... That's why we should help one another!"
- "OK let us help one another. Get me one more box"
- "Only one?"

So far, we can say that what we have observed entails action in an interface situation: Pablo and the customer exchange *mezcal* for money. Of course, matters are much more complex than in the situation sketched above. Nothing has been said about the amount of money for which the bottles eventually passed hands. Nor do I touch upon economic profit - either obtained or expected - or the value attached to this by the parties involved. Neither do I talk about the knowledge, the skills necessary for the transaction. Also missing is the degree of freedom open to Pablo or the canteen owner for exchanging X litres of *mezcal* for Y amount of money. An important observation at this point, though, is that *mezcal* and money participate in the construction of the interface by defining the identities of the parties involved. Thus Pablo is defined as a seller, and the client is defined as a buyer - with money and *mezcal* mediating between the two. Money and *mezcal* are thus *intermediaries*. Put differently, we can say that the identities of Pablo (as a distributor of *mezcal*) and his customer (as a buyer of *mezcal*) are inscribed in *mezcal* and money. What's more: *mezcal* and money do not 'simply' stand at the interface of two known worlds. Rather, *mezcal* and money construct these worlds by bringing them into relation: in the absence of *mezcal* and money both men would probably never have come into contact with one another (cf. Hennion 1989).

But there is more to it: *mezcal* and money are not alone in bringing together Pablo and his client. Indeed, money and *mezcal* map out a host of other intermediaries that are crucial in allowing for an uncomplicated transaction at the interface. I refer to some of them in the narrative: kin relations, automatic teller machines, a pick-up truck, steep mountain slopes, patron saints, tax inspectors, competing *mezcal* brands, canteens, jerrycans, refrigerators, glass bottles, rain, crops, beer, farmers, economic

crisis, solidarity notions. And this is only a very partial list of all that is brought to bear at the interface between Pablo and his customer. And all these elements stand in a certain relationship to one another, that is, they are aligned in a specific way. In fact, one could see them as a network, an actor-network. A network that took time, effort, skills and knowledge to construct.

Interfaces thus involve networks. Networks which, for all practical purposes, are black-boxed - that is, in practice one is only seldom aware of the complexities that are part and parcel of these networks. In routinized encounters distributors and customers (and their networks) need not be defined all over again at each and every exchange. The networks behind distributing *mezcal*, can be (and are) simplified: all that matters is that the network functions, and that *mezcal* is exchanged for money. Thus apparently simple elements - *mezcal*, money, a distributor, a consumer - may, if only for practical purposes, masquerade the networks that have spawned them. Interface situations, then, may disguise networks, showing only façades in the process. Paradoxically, as we will see next, they may also open them up.

Interfaces, networks, and façades: localizing an operational context

The networks referred to above are made visible when we drive around the block to our second customer. On the way, I see Pablo nervously watching his mirror, and I ask him what is troubling him. He comments:

"I'm trying to figure out the guy in the red pick-up behind us. In this business you can expect anybody to follow you just to see where you are selling. When I was working for Armando [third largest *mezcal* producer] he asked me where exactly I was selling. I didn't tell him the details, but he must have had me followed because on my next trip I found that he had already send a *camioneta* ahead, and was selling for just a little above factory prices. So he really took advantage of me! Of course I stopped working for him..."

The memory of the incident still angers him. We ride past our second customer, and drive around the block to make sure we are not being fol-

lowed. The red pick-up disappears from sight so we can now 'safely' park in front of Romualdo's, owner of the largest convenience store in the locality. Inside, Romualdo tells us to unload 100 litres of white *mezcal* - about two thirds of all the *mezcal* we carry in canisters, and about double the amount he usually buys. The deal itself looks good, but when looked at closely it implies a huge problem. Why? Of Pablo's customers, Romualdo - who resells the *mezcal* in Guadalajara - is the one that buys for the lowest price: Pablo only makes one peso (USD 0.30) per litre on him. When Pablo carries enough *mezcal*, all sales to Romualdo are welcome. But in a shortage situation like the one we are in, the exchange suddenly takes on a different meaning and creates a difficult dilemma for Pablo: with 100 litres already going to Romualdo, there is little *mezcal* left to sell to higher-bidding clients and thus turn the trip into a profitable one. This implies that we will have to skip the clientele paying a lower price and only sell to those customers willing to pay a higher one. This tactic however is self-defeating because lower prices are an historical outcome: they apply to Pablo's most reliable clients. Those - like Romualdo - with whom there exists a long-standing relationship. And Pablo would not want to risk losing their business (and their friendship) by failing to supply them. Thus Pablo now has to make some very strategic and careful calculations.¹⁰ For example, it certainly means we will have to let fall the Soyatlán part of the route. This is financially damaging because Pablo will have to make an extra trip there the next day.

Of course, Pablo could have anticipated the situation, for example by taking enough *mezcal* with him in the first place. His failure to do so, however, was not borne out of short-sightedness, but out of a lack of money for stock. In a highly competitive field such as that of *mezcal* selling, independent traders like Pablo earn enough to make a precarious living, but they are certainly not in a position to accumulate.¹¹ In fact, most *mezcal* traders I met complemented their commercial venture with other entrepreneurial activities. In the case of Pablo, the situation was pretty woeful: his wife and three children were only able to make ends meet through the sale of home-made *cenas* his wife sold on the street. Otherwise Pablo was pretty much broke, and in fact ever more indebted each day (his total outstanding debts were close to USD 20,000.) Finding a source for financing his weekly delivery route was thus an expedient task.

Indeed, in the year and a half I interacted with Pablo I traced quite an extended borrowing network. Apart from Benigno and myself, major sponsors included Alejo (a sugarcane producer), Juan Arias (co-owner of the second-largest *mezcal* factory and who also helped with the downpayment of the Chevy), Pablo's brother-in-law Antonio (a brickmaker), his sister (married to a wealthy family), David (a neighbour and truck owner/operator), an uncle (shop owner and sugarcane producer), and his wife. From this set of people Pablo borrowed interest-free - although once in a while he would pass on a good bottle of *mezcal* to them. A problem, however, was that Pablo could not always count on their help. For example, when the economic crisis hit the California construction industry (which employs hundreds of thousands of Mexicans) there was a discernible decline in remittances sent to El Grullo. This resulted in reduced local construction activities, which in turn induced a temporary crisis in the regional brickmaking sector. The consequence for Pablo was that his brother-in-law Antonio struggled with a negative cash flow for quite some time and was thus unable to lend Pablo any money. Likewise, David (the truck owner) would be absent for months on end working near Tijuana with his equipment: Pablo could count on him, but only upon his return. Or else Alejo, his main sponsor, would not get paid on time by the sugarmill and hence stop backing his friend and *compadre*. With all this "noise", more often than not alternative borrowing instances had to be found. These consisted mainly of the *Caja Popular* and, in extreme situations, a variety of local moneylenders charging 4.5-5% a month. Pablo always made sure he paid back the latter in time - which sometimes presented a problem for those who lent him money on an interest-free base (such as myself or his kin).

What can we make of this all? Can we find prime movers in the above interface situations? What status do we attribute to the 'general' or 'structural' economic malaise affecting Mexico? Can the 'tendencies' and 'countertendencies' of global capital accumulation be our scapegoat for explaining Pablo's predicaments, as some authors (cf. Fine 1994) would suggest? Can the story above be made to hinge on the prosperity of the local brick industry, or on the local agricultural context? Not exactly. I want to approach the issue differently. There is nothing esoteric about 'context', or about the 'global': in the end, the interface situations above unfold networks of people and things that may not be physically present, but which in fact link the distribution of a relatively 'simple' commodity to 'complex' and 'distant' actors such as a crisis in the California con-

struction sector. And here is a methodological point: from my perspective, the visualisation of this 'context', this network of heterogeneous materials, can be effectively opened through the de-scription of interface situations.

Interfaces, networks, and façades: localising producers and consumers

Interfaces make visible the way in which operational requirements for the distribution of *mezcal* are localized and contextualized. In the same fashion, they also picture the networks that trace out its buyers and its makers. Put differently interfaces, via intermediaries, localize and contextualize producers and consumers. How can this happen? Let us visit a 'good' client from Acatlán: one paying a relatively high price for *mezcal*. As soon as we get off the gasguzzler, it appears that the owner does not want to buy anything today. On the contrary, he returns a full, 20-litre jerrycan of *mezcal* that Pablo delivered last week. In a rather hostile manner, he mutters:

- *"Hey Pablo! What the fuck is this? Look at this vino! Are you trying to poison me?"*

As I gather from Pablo's expression, he understands the reason for the animosity. What is happening here? The story runs as follows. A fortnight ago, Benigno (the *mezcal* producer) had some trouble with the taste of a batch of the spirit. Different stories circulated about this problem. Benigno himself accused the sun: according to him, the plastic jerrycans containing around 450 litres had probably been left standing in the sun for too long so the taste had deteriorated appreciably. Another version was given by the person in charge of the actual fermentation process at Benigno's distillery. This person pointed to bacteria as the main originators of the damage: the somewhat sour taste and fetid smell had been caused by faulty fermentation due to insufficient sterilisation of the fermentation tank, letting unwanted bacteria add an undesirable flavouring to the brewage. Yet other interpretations charged the type of agaves utilised: they had been of poor quality due to a wrong mix of climatological and edaphic conditions in which they had been grown. At any rate Pablo, upon hearing that Benigno was about to throw the *mezcal* down the drain, paid him a visit to avoid such a 'disaster'. He persuaded Benigno not to commit the 'monstrous' sin, and in the end got the jerrycans for

free - although Benigno did warn him that he should "... sell it in places where you won't come back".¹²

With the sour *mezcal* Pablo then paid a visit to León - a *mezcal* producer from Toluimán. León, on good terms with Pablo, promised to help by 'fixing' the taste and the smell of the 'bad' *mezcal*. This he did by emptying the jerrycans into a huge container and, since the alcohol content of the 'bad' *mezcal* was very low (close to 20°GL), added 60 litres of 96% alcohol to boost alcohol percentage to somewhere near 30°GL - just enough for consumers not to notice that the drink was not up to the 'normal' standard of 36 degrees.¹³ Then, passing the drink through active charcoal filters, the pungent smell of the *mezcal* had been 'domesticated'. Finally artificial colouring and almond essence were added for visual and bouquet purposes, as well as a few drops of glycerine to make the *mezcal* 'stickier'. The end product was a soft-tasting, yellowish liquor that closely resembled tequila, *mezcal*'s cousin. The booze was then sold by Pablo - but unluckily for him not only where he was not known. So far, not one single customer had protested. Until now. Apparently, Pablo had forgotten to take one of the jerrycans to León to be 'treated'. And this specimen had now surfaced with this client.

The interface situation illustrated above links one, again, with a network of elements (the sun, bacteria, fellow *mezcal* producers, almond essence, soil conditions) which, in turn, localize both producers and consumers. For example, divergent forms of producers' social and technical organisation are here made apparent. Thus Benigno does not have the skills, the knowledge, nor the technical means to 'domesticate' a batch turned sour. In case of failure, he can flush the *mezcal* down the drain, or give it away. León on the contrary possesses the skills 'soften' the taste of *mezcal*. He can also count on the technical means to do so. Symmetrically, consumers are localized either directly or indirectly. Directly when they complain about a batch that was mistakenly smuggled into the trade route. And indirectly by the mere fact that (some) *mezcal* producers know how to 'fix' a spoiled batch of drink (which entails knowledge of the consumer).

Interfaces, networks, and façades: constructing consumers and producers

The vignette above shows how interfaces and intermediaries may on the one hand localise producers and consumers, while on the other they mix up elements that are normally attributed to either the 'consumption' or the 'production' domains. Thus we can venture to say that both production and consumption of *mezcal* are interlinked. We are now left with an image of production and consumption as the two faces of Janus, each one linked to different actor-networks, yet united by a single intermediary that circulates between them and constructs them both. The producer is what he makes. And what the consumer drinks. The consumer is what he drinks. And what the producer makes.

One clear example of this arises in a canteen in Miraplanes, far from the main road. The owner, some customers and I are chatting about the quality of different brands of *mezcal*: *Tonayán*, *Arias*, *Tres Coronas*. Sensing the moment, Pablo goes to the pick-up and comes back producing a plastic bottle of *mezcal*. Without having to insist too much, he lures both customers and the owner into savouring it.

Pablo: *"I want you to taste this vino. It's not a very well known brand, but I assure you it's a very fine mezcal. It's been aged three months in an oak barrel"*

Customer A (reading the sticker on the bottle): *"Reserva del Abuelo. From Toluimán. Son of a gun, that's pretty far away!"*

Customer B: *"Toluimán, Toluimán... The best agaves come from those places"*

Pablo: *"From there and from Tequila"*

So the brand is not well known, but its place of origin is: common knowledge has it that the better agaves come from either Tequila or Toluimán. After tasting it, all present agree that it is much better than *Cordobés*, Pablo's house brand. Indeed, they even coincide that the product is even better than that of his main competitors. Several canteen customers agree that the taste is 'soft' as it does not hurt the throat at all. Pablo explains that the reason for the soft, 'special' taste is to be found in the careful blend of mature agaves of the *lineño* and *cuahquisoca* varieties. These,

he continues, are still cooked with wood in the old-fashion *barbacoa* (buried under ground) style.¹⁴

Customer A (apparently trying to establish rapport with Pablo for some more free drink):

- *"Well, mezcal is like beans. After all, beans also taste better when cooked slowly with wood in an earthen pot"*

All present laugh in approval. An older client demonstratively pours some of the *mezcal* on his hands, rubbing it in. He then takes his hands to his nose, and smells. Everybody seems to wait for an answer. The man remarks:

- *"This is one-hundred-percent mezcal with no alcohol added. Sweet. It smells of cooked mezcal. I can tell you this because I used to work at a taverna myself when I was young"*

Pablo adds: *"This vino has not a single drop of alcohol added to it. It is as you say. Look at the way it sticks to your glass. Just try and do that with Tonayán! Reserva del Abuelo [Grandfather's Reserve]: The name says it all..."*

One patron, by way of argument, comments that he hopes that this *mezcal* does not follow the trajectory of *mezcal Arias*, which was of very good quality a year or two ago. It conquered a huge share of the market by offering a good price/quality relation. But now that the Arias brothers are successful they have neglected the quality of their *mezcal*. So now people are turning their back onto the product.

Pablo: *"No, no. I tell you: the producer of Reserva del Abuelo is a good friend of mine. He would not even think about staining his family's name by adulterating the vino"*

The matter seems to be settled now; all present agree to the high quality of the product, and the subject is changed. We open another 'promotion' bottle and drink from it with the owner of the place. While talking about football, the killing of Guadalajara's cardinal, and the physical aspect of a lady walking past the canteen, the owner plays around with the *mezcal* in his glass. He smells it, tastes it. He also shakes his glass, and bubbles appear on the surface of the liquor. He points this out to me, explaining that good *mezcal* should make bubbles when shaken. Later, to do busi-

ness, the owner discreetly accompanies us to the truck and asks about the price for the 12-litre box of *Reserva del Abuelo*. Decidedly, Pablo asks seventy-two pesos (USD 23) but adds that, since this is an introductory promotion, he will settle for sixty pesos (USD 20). The canteen owner at first hesitates, arguing that his customers like quality but are not at all blind to the price. Pablo explains:

"Well I'm not going to beg you to buy the *vino*. Only women are there to be begged. But you have to see it this way: a bottle of *Cordobés* is costing you three-thousand-five hundred [USD 1.15]. This good *vino* is just fifteen hundred [USD 0.50] more. That's nothing once people start drinking! This *Reserva* you can easily sell for two-thousand-five hundred [USD 0.80] a shot.¹⁵ You just saw how they liked it in there. Per bottle you'll make a lot more, I assure you!"

The canteen owner laughs and swears at his interlocutor's cunning. He tries to negotiate the price, offering fifty five pesos (USD 18) for the box of twelve, but Pablo sticks to his price. Finally, the client succumbs to his desire, and pays the sixty pesos (double the amount paid for it by Pablo).¹⁶

The vignette unfolds a network of heterogeneous materials that brings us directly into contact with the realm of *mezcal* production and consumer taste and desire. So far the network links the producer and the consumer through the mediation of the distributor. But I wish to further the point, and argue that the product itself already contains the consumer the minute it leaves the distillery. Indeed, the producer tries to incorporate his hypotheses about the characteristics of the consumer into a bottle of *mezcal*. In other words, the final product has already localised its future consumer. And herein lies the 'secret' of the Janus-face of a bottle of *mezcal*. In the words of Hennion (1989:199), the object - in our case, drink - is "... a thing, but a thing for a person. A technical product and a product which communicates. A product that fulfils a need if it knows how to create the needer. And not in two successive phases, but more and more as a single, unified collective process."

But how can we conceive of this unified, collective process? As we have seen in the above narrative, the argument on the quality of the *mezcal* centred around bubbles, the way agaves are cooked, the ageing process, sweetness, stickiness, the absence of alcohol, 'true' *mezcal* flavour. But

these are not merely quality indicators that exist in isolation from the production process. If one is allowed to peep over *mezcal* producers' shoulders, as I was, it quickly becomes obvious that there is no such thing as a secluded producer manufacturing *mezcal* the way he, and only he, thinks appropriate. *Mezcal* producers are not ascetic monks. They define the consumer and incorporate him into the bottle through knowledge gained in practical negotiations with mediators of all sorts: consumers themselves, distributors passing on information about the success or failure of specific innovations, gossip about competitors' products, reports about the 'state of the market'. Clearly, the list of elements mobilised to define the client is not limited to fifteen or more varieties of agaves cultivated by dozens of farmers, *tavernas* distilling different types of *mezcal*, or manufacturers of synthetic flavours, artificial dyes or glycerine to make *mezcal* 'sticky'. It is indeed a much lengthier network that may expand or contract according to the circumstances and the inventiveness of *mezcal* producers. It is like a shapeless amoeba that swallows up all sorts of elements: bottles of different sizes, shapes and materials; polyurethane jerrycans; designer studios and their product stickers; cardboard boxes; charcoal filters; almond essence; wood; publicity through all sorts of means; different types of agaves. With this cavalry localising and defining the client, it would indeed take some stubborn customer to dissent!

Changing relations between producers and consumers: reversing tradition

Localizing the consumer and defining his desire clearly is not a wanton process. It has a historical dimension. A market for *mezcal* already exists prior to the distiller's productive activities just as *mezcal* already exists before it becomes an object of desire for the consumers of our interface situations. Producers can never provide a once-and-for-all definition of the consumer, just as consumers can never give a final meaning to *mezcal*. The form that desire for *mezcal* takes changes over time because desire is differently articulated with all sorts of entities and ideas. This is an ongoing process of fine-tuning between he who produces and he who consumes. When customer a makes the quality of *mezcal* (and of beans!) hinge on the material its is cooked with, then this is a representation that is place- and time-bound. In different places, at different times, consumers may prefer *mezcal* made from agaves cooked differently, e.g. in pressurized ovens. Thus the heterogeneous entities responsible for a specific

relation between producers and consumers may be differently articulated or re-ordered.

One such re-ordering is that of the introduction of so-called 'commercial *mezcal*'. Around 1990-91, a shortage of money became evident among the poorer part of Jalisco's population. This had a consequence on *tequila* consumption - *mezcal*'s more expensive cousin. Sales of this drink plummeted and, because of strict quality norms, producers thereof could not 'downgrade' their product and 'reach out' to low-income consumers.¹⁷ This provided a golden opportunity for *mezcal* producers. Contrary to *tequila* producers, there existed no legislation to regulate the quality of *mezcal* and producers could - and did - experiment. And so it was that 'commercial *mezcal*' came into being. This type of *mezcal* is obtained from the last fraction of the distillation process, which has an alcohol content of 15-20°GL (as compared to the 70-75°GL of the first fraction of the distillation gradient which is basically quality *mezcal*). Normally, the last fraction would be added to the boiling cauldron to boost a second distillation run. However, in 1991 a *mezcal* producer 'discovered' that by adding a small percentage of 96% ethyl-alcohol and water to the last fraction, a drinkable product tasting of *mezcal* could be obtained. Bottled in one- and two-litre plastic containers, the drink of 30-35°GL was baptised as 'commercial *mezcal*'. Its low price and its name of '*mezcal*' assured market success, as it found wide acceptance with low-income consumers.

By the time of the encounter at Miraplanes, in October 1993, all 30 registered *mezcal* producers in Jalisco were marketing this type of drink. Competition was cut-throat, and this in turn facilitated a number of further innovations in the product. These innovations changed, for example, the character of the relations between *mezcal* producers and the owners of agave plantations. Indeed, 'commercial *mezcal*' permitted a higher turnover of the plantations since, strictly speaking, mature agaves were not any more needed for its elaboration (sugar and ethyl alcohol did the job equally well). Consequently, sharecropping and renting agreements with producers of agave changed dramatically. Similarly, the addition of glycerine to *mezcal* to bring about the sticky property that characterises traditional, strong, 100% pure *mezcal* can be seen as a re-ordering effect. And so can the presence of almond essence for obtaining a characteristic smell; or of saccharin to give 'commercial *mezcal*' the sweet property typical of mature agaves; or artificial colouring to anticipate consumers' knowledge that oak barrels change the colour of *mezcal*; or oily soap to foresee consumer knowledge of the propensity of

quality *mezcal* (of more than 46°GL - which nobody is going to corroborate anyway) to produce long-lasting bubbles on the surface when agitated; or adding alcohol to the boiling cauldron before distillation, not afterwards so that the alcohol becomes less harsh on the throat and assimilates the taste of fermented agaves.

Clearly, the re-ordering of all these heterogeneous elements is simultaneously related to the technical and social aspects of *mezcal* production, as well as to the market. Through all sorts of re-arrangements, producers try to fix the identity of the (localized) consumers by translating - through trial-and-error - preferences and inscribing them into a bottle. As we have seen, this may take the form of: *"So you think bubbles are an indicator for good mezcal? No problem: I'll add bubbles to the mezcal you will buy from me!"*

Conclusion

In this Chapter I have shown how the cherished dichotomy between producers and consumers comes crumbling down once one adopts alternative views that do more justice to the actual practices of producers, consumers and, crucially, mediating distributors. By using some concepts from actor-network theory, it is not difficult indeed to imagine that a radical critique of the political economy of food lies within grasp. Here I have begun such a critique by showing how the identities of producers and consumers of *mezcal*, cannot be reduced to social or economic essences. Instead, these identities are instead constructed at a variety of different points that go beyond the realm of production - or, for that matter, that of consumption.

In order to develop this argument, I introduced a number of vignettes focusing upon a number of interface situations; situations that involved actors trying to define each other's identities through intermediaries. If 'unproblematic', the interfaces showed ongoing action. But once the apparent simplicity of the action was breached, the struggles, negotiations and accommodations to define the identities of the participants - both physically present or more distant in space or time - were made apparent. In this way, interfaces unfolded vast networks, manifesting cacophonies of people and things that were subsequently brought to bear on the interaction. The effect of these interactions pointed, on the one hand, to the existence of producers and, on the other, to that of consumers. But these poles, I argued, cannot be taken as starting points. Rather, they should be seen as end products - as the outcomes of a

linkage between producing and consuming; a linkage that is constructed through the mediation of an object, namely *mezcal*. (It would in fact be impossible to say anything about consumers or producers of this liquor without referring to the product itself!) *Mezcal*, of course, does not map out, trace, or mediate this relationship all by itself. It needs help. It needs allies, if only for the reason that the definition of the consumer - as inscribed in a specific bottle of *mezcal* - can be challenged any time. This is most patent when a customer turns his/her back on the product, or buys another brand. Thus in the vignettes sketched above *mezcal* bottles can count upon a powerful ally: the distributor. Indeed, Pablo's capacity as mediator between product and consumer is crucial. Selling a bottle is not automatic, but entails knowledge of consumers and the skills of translating from one domain to the other. And, symmetrically, it requires knowledge about the manufacturing process. Thus Pablo cannot rely on the technical characteristics of the bottle alone. Nor can he resort only to his skills as a good salesman. He has to negotiate, to respond to the local situation. Modesty and the certainty that the attributes of his *mezcal* will sell themselves will not do the job for him. But neither will success be guaranteed if he is over confident, believing he can seduce his clients into buying without making reference to the properties of the *mezcal*. In fact - and this is a methodological point - Pablo's mediating position between people producing and consuming in fact prevents one, as analyst, from making simple reductions from producers to consumers.¹⁸

One and the other are made explicit in the different sections of this Chapter by addressing the way in which, first, an operational context (i.e. a 'global' network) is defined, after which the identity of both producers and consumers is simultaneously constructed in the 'inside' of the project - in other words, how these identities are localized in a 'local' network. At stake in these processes are a number of issues. Does the consumer, for example, know the price range of *mezcal*? Does he recognise differences in quality? Does he have any preferences for *mezcal* from particular localities? Pablo negotiates these questions *in situ* by bringing to bear some critical elements on the situation: the type and origin of agaves that are employed in the distillation of a specific *mezcal*, the character of his competitors' products, the 'oiliness' of the liquor, the material from which the bottles are made, the quality of the barrels in which *mezcal* is aged, and so forth. The effect of these negotiations is the fixing of the identity of the product and the producer. Both identities are inscribed in the form of a bottle of *mezcal* passing hands, which sometimes implicates the consumer in buying a bottle of 'inferior quality' *mezcal* for an astronomical price.

Likewise, at the interface between Pablo and the owner of the distillery, negotiations take place as to the identity of the producer: is he willing to expand his business? Does he know the preferences of clients? Pablo translates these and other questions by mobilising different elements from the 'consumer' domain: preference for the taste of agaves coming from specific localities, a choice for a competitor's product, consumer's perceptions that good *mezcal* should be 'oily' or 'sticky', approval of the taste of *mezcal* aged in oak barrels, and so on. The effect of this translation is that if a producer accepts the identity attributed to him by Pablo, then he simultaneously has to take account of the identity of different consumers. Thus the identities of both producers and consumers are a *simultaneous* construction, and are both reflected in the taste, colour, presentation etc. of a bottle of *mezcal*.

Another way of stating this is to say that *producing* and *consuming* are no more and no less than a set of *localizing* practices that cut through space and time in a specific way. One attendant circumstance of this image (should I say representation?) is that it allows one to side-step the difficulties involved in legislating between what should count as global, and what is local. The paradox of 'the global' and 'the local' can now take a more tangible form: for Pablo, for producers and for consumers, to talk of *mezcal* is to *localise*, to talk locally. The networks that make up *mezcal*, as we have seen, are always local, even if they take us to geographically distant places. Agaves in Jalisco and construction workers in California are close to one another insofar as they share the same network topology. From an actor-network perspective, the global is local in all places (Latour 1987). This insight clearly does not follow by referring to stories that are external to the accounts given by my 'informants'. Rather, it follows from the *de-scription* of a set of intermediaries which/who make visible otherwise indistinguishable molochs such as the California construction sector or international sugar prices.

Notes

1. *Vino* literally means 'wine'. In the regional context, *vino* is often used to refer to any sort of alcoholic drink (except beer). In practice, '*mezcal*' and *vino* are used interchangeably. So are they in this text.

2. The low concentration of police patrols was actually the reason Pablo wished to try out the Pacific Coast route. Other alternative routes he longed to 'do' (Guanajuato, León) featured a much higher concentration of police activity. And, significantly, they led through nightmarish roundabouts in congested cities he despised (Pablo had never actually driven there).

3. *Seguro de Ahorro para el Retiro* is a retirement pension. The employer's contribution amounts to 2% of the monthly gross salary of the worker.

4. *Instituto para el Fomento Nacional de Vivienda para los Trabajadores*. The employer's share in this housing fund amounts to 5% of the worker's gross monthly income.

5. Long (1989:2) defines interfaces as those "critical points of intersection or linkage between different social systems, fields or levels of social order where structural discontinuities, based upon differences of normative value and social interest, are most likely to be found."

6. An actor can be of a 'social' character, such as an organization, an individual, a group etc. But it can also be a thing. Whether an actor is human or non-human cannot be established *a priori*. This is an empirical question since it is the outcome of identity constituting practices entailing struggles, negotiations, and accommodations.

7. Thus a seemingly 'simple' exchange encounter may disguise, blur, render invisible complex sets of relations - what Latour (1994a) calls *collective agents* - made up of humans and nonhumans. Here I emphasise *may* because, at any moment, the relationships between the different elements making up the collective may be problematized and questioned, opening up, as it were, all the complexities involved.

8. A *galón* is a five-litre bottle. White and yellow refers to the colour of the *mezcal*: yellow is supposed to have been aged in an oak barrel while white *mezcal* is supposed to come directly from the alembic.

9. Glass bottles are easier to clean than plastic ones. Benigno is quite keen that Pablo returns all 5-litre glass bottles he takes with him, since these are not produced any more.

10. In the end, we only dropped by those customers that paid a high price for the *mezcal*. The reason for this was that "I can calm down the better customers next week on my next trip. They'll understand". So friendship does not always run thicker than money!

11. Thus, while in 1987 Pablo paid USD 5 for a five-litre gallon at the gate of the *taverna* (which he sold for a profit of 60-80%), in 1993 he was paying USD 2.70 for the same gallon (which he sold for a profit of 40-60%). During this period, Pablo thus experienced a considerable decline in income. Similarly, a twelve-liter box of *Cordobés mezcal* sold for an average of USD 20 at the beginning of 1993, while by mid-1994 average prices had dropped to somewhere between USD 13-15. Although total sales of *mezcal* producers increased enormously in this period, the profit margin for individual traders like Pablo fell substantially. The main reason given for this was *Tonayán's* - and others - aggressive selling methods. These companies recently started marketing and distributing their own produce, with salesmen-chauffeurs obtaining a salary and not a percentage of possible profits. Thus standardization of *mezcal* prices was taking place along their distribution routes.

12. The *mezcal* was not 'poisonous' in the sense that it may have contained methanol or other unhealthy substances. Quite simply, it meant that the taste and the smell were faulty.

13. This points to the fact that the party obtained by Pablo was probably the *cola* or last distillation fragment. The better fraction had apparently been used by Benigno himself for the production of strong *ponche*. In that case, the smell and taste of the *mezcal* would not be apparent because they are dominated by the smell and taste of the fruit.

14. In this 'traditional' process, agaves are split with an axe and piled into a crater-like hole in the ground. At the bottom of the hole there is burning charcoal covered with stones to disperse the heat. The split agaves rest on top of the stones, and are then covered with earth and allowed to 'cook' slowly (72 hours) in order to convert their sour juices into sugars. See Chapter Seven for further technical details of the production process of *mezcal*.

15. A glass of *Cordobés* goes for 2,000 pesos at the canteen. A one-litre bottle contains some 8 servings.

16. Pablo can still achieve high profit rates in places that are distant from the main roads. Since official distributors from the larger companies (*Tonayán*, *El Mezcalito* or *Arias*) do not visit these places, there is no standardization of price there. New, or barely known brands thus offer a huge profit margin in isolated hamlets because people can still be charmed by 'special' attributes. Here (but not only here), price and desire stand in a direct relationship to one another; a relationship mediated by the distributor.

17. From these years onwards, *tequila* producers have increasingly turned towards export (cf. Luna 1991). Some of them, however, have gradually decreased the quality of their product - much to the annoyance of quality-tequila producers who thereby fear their product will lose its image.

18. I take this point from Hennion and Meadel (1989).

CHAPTER 9

TRANSFORMING COLLECTIFS

In the preceding Chapters the locus of attention were specific, small-scale entrepreneurial projects and the global and local networks they helped put in place. In this Chapter I shift attention away from specific projects, and address a much larger network of firms. This network or *collectif* encompasses those actors involved in the production of *mezcal* - a commodity that figured prominently in Chapters Seven and Eight. In this Chapter I deal with the transformation of the *collectif*, and the way in which this transformation is given shape through the continuous realignment of so-called social, technical, economic and political elements entailing the mobilization of both humans and non-humans. However, as Latour (1994a:49) points out, to do so is not without its problems:

"To view people and nonhumans as interacting within collectives, to define objects as institutions, to fuse subject and object in a corporate body, we need to know what a collective, an institution, and a corporate body are. The difficulty is that we cannot rely on how social theory defines these, since, for many sociologists, a social order is the source of explanation and not what needs explaining".

Indeed, questions such as 'What is *mezcal*?', 'What is the *mezcal* sector?', are tricky in that notions of '*mezcal*' and '*mezcal* sector' are taken to be essential, pre-existing categories not in need of explanation. In light of this, questions such as 'What have changes in the *mezcal* sector consisted of?' are even more misleading.

What, then, is *mezcal*? This is a difficult question, for different people may attribute different meanings to it. To talk of *mezcal* as a category, then, is to conceal these attributions. In a way, the term '*mezcal*' stands for a black box, a script (Akrich 1992). A script that *describes* a world from which it derives (the realm of production) but which at the same time *prescribes* a projected world (the domain of consumption). As a potential commodity, *mezcal* seeks to stabilize this projected world. As a *real* object though, *mezcal* stabilizes these described and pre-scribed worlds - bringing, as it were, order into the disordered conditions of its existence. In other words the term *mezcal* conceals or black-boxes the myriad of struggles and negotiations that underlie its creation.

In the next section, I portray some of these underlying struggles and negotiations by way of a short historical overview of the trajectory of *mezcal* - describing, as it were, how a *collectif* acquired a certain degree of convergence, and was able to standardize a number of relations - in

the process temporarily giving momentum to some of these. This sets the stage for a further discussion of how a 'fact' (*mezcal*) born long ago has become a stable feature of the rural Jalisco landscape, shaping action and giving direction to certain kinds of change, while inhibiting others. This is followed by a description of the dynamics which result from the character of *mezcal* production. Finally, I discuss the development of the *mezcal colectivo* in terms of the concepts of convergence, standardization and momentum.

Mezcal - historical overview¹

There are no records of the existence of distilled spirits in prehispanic Mexico, and there is widespread agreement that the process of distilling already fermented beverages such as *mexcalli* or *vino mezcal* (made from the heart of the *mezcal* agave) was introduced by the Spanish conquerors in the early 16th century. At the beginning of the 17th century some *hacendados* in the vicinity of Guadalajara were known to produce distilled *mexcalli* for their own and their labourers' consumption. However, from the *Conquista* in 1510 to roughly 1650 producers, traders and consumers of *vino mezcal* had to put up quite a fight against a series of prohibitions and restrictions that ranged from hefty fines to jail sentences and even the death penalty for whoever was found drunk upon arrival at certain colonial cities. The latter was the case in the city of Colima and some districts of the coast of Jalisco and Southern Nayarit where early colonialists were engaged in a war with the Colimotes whom they tried to "pacify". Despite the penalties, evidence suggests that from the middle of the 16th to the middle of the 17th century, *vino mezcal* was being produced at an ever larger scale. Most consumers were neo-Galicians and *criollos* for the local population liked *pulque*² better. It is not until half-way into the 17th century when Guadalajara becomes a regional center that *vino mezcal* is produced for commercial purposes. For tax reasons, a legal break was given to both producers and consumers of the well-liked beverage, and an official *estanco*³ was created in which all liquor entering the gates of Guadalajara had to be sold.⁴

The actual boost in the production of *vino mezcal*, however, did not take place before the start of the 18th century when the northern part of Sonora, Baja and Alta California were "pacified" and opened to colonization by the Jesuits Kino and Salvatierra. Slowly a market developed, with Guadalajara as the natural supplier. This market grew significantly after 1767, when all jesuits were expelled from the Castilian Empire and opportunistic friars such as Junipero Serra expanded the Spanish and Franciscan jurisdiction to what is now San Francisco in California. Another factor promoting the *mezcal* market was the increase in trade between Spain and the Philippines in the middle of the 18th century - a

large portion of which passed through Guadalajara on its way from San Blas (Nayarit) to Veracruz and finally to Cádiz in Spain. These developments opened new windows to the world for Guadalajara, and by 1800 the city was a major trading center communicating the Philippines, Upper and Lower California as well as Northern Mexico with Spain. The importance of Guadalajara as a regional trade center increased along with these developments, and was further boosted during the Independence War (1810-1821) when the leader of the insurrection, Morelos, dominated the Southern coasts of Guerrero and its important harbour of Acapulco. This made it necessary to re-route a large part of Spain's Far East trade through the port of San Blas (and thus Guadalajara). *Vino mezcal* became an important by product of this trade, and those *Alcaldías* (jurisdictions) on the road between Guadalajara and San Blas such as Tequila, Amatitán, and Ahualulco benefitted most. *Vino mezcal* produced in these jurisdictions became widely known in Mexico City, where it was preferred over its cheaper cousins from Oaxaca and San Luis Potosí. In due time, the product became known for its region of origin - hence the name *tequila*.

Halfway through the 18th century, the colonial Administration opened two more *estancos* in Sayula and Colima, both on the road to the alternative harbour of Manzanillo. The *vino mezcal* offered in these cities, however, was produced in the relatively nearby towns situated in the region known as *El Llano* (Tonaya, Tolimán, Tuxcacuesco and San Gabriel). In time, *vino mezcal* reaching Colima and Sayula also became known by its place of origin and was (and is) called *tuxca* (from Tuxcacuesco) in the vernacular.⁵

Mezcal never profited from an expanding market the way *tequila* did. Because of the remoteness of the location of *mezcal* production - roads into the area were built only after 1960 - the liquor was never manufactured on a large scale and was mainly consumed locally. With the exception of liquor from Tuxcacuesco, *mezcal* from the South of Jalisco rarely passed the *hacienda* gate. The secret of distilling was passed on from father to son, to the extent that even nowadays most producers are directly related to former *hacendados*. Notwithstanding its exclusivity (or perhaps precisely because of it), *mezcal* from around *El Llano* enjoyed the reputation of being of exceptional quality. This status was a strong incentive for *arrieros* (merchants who carried goods with mule packs along centuries-old trade routes) to enlarge their profits with the illegal transport of the liquor to larger urban centres. Thus, by the end of the last century, quite a significant smuggling network had emerged, connecting *mezcal* producing communities from the rugged interior of Jalisco to the wider world. Former *arrieros* still recall that they were awaited with great expectation (both by users of the drink as well as by the police) in Autlán, Sayula, Zapotlán - now Ciudad Guzmán - and Colima if it was known that they had passed through *El Llano* on their way. Indeed, by the 1920's illicit traffic of *mezcal* had become more important than the trade in any

other good - with the exception of sugar - transported by *arrieros*. As an eighty-five year old ex-*arriero* hilariously explained to me after I ignorantly asked him whether or not *mezcal* was traded in those days:

"Young lad, *vino* was precisely what the business was all about!"

These tenacious smugglers slowly but steadily brought about a functional network linking producers and consumers. When, by the 1940s, trade in *mezcal* was made legal (though amenable to taxation), marketing channels and a secure pool of consumers had already been established. Supported by the effects of the implementation of the land reform, supply of the liquor immediately skyrocketed. In the words of one of the first *ejidatarios* in San Gabriel:

"Before the land reform everybody worked for the boss at the *hacienda*. With the agrarian reform everybody got his own piece of land. From then on, everybody had his own maize plot to live from and most sowed agaves to earn some money."

The lifting of prohibition, the land reform, and extra-regional demand thus set the stage for an increase in *mezcal* production, and small distilleries mushroomed in El Llano during the 1940s and 1950s. An increasing number of local *arrieros* took care of its distribution, supplying Guadalajara, the North of Jalisco and the Western part of Michoacán with the well-liked liquor. As a side effect, a number of these *arrieros* - especially those doing the route to Los Altos - took on jobs at *tequila* distilleries in Arandas, Atotonilco and Tepatitlán. Some of these distilleries had already industrialized the production of *tequila*, and when these former *arrieros* moved back to their home communities in El Llano they took with them their knowledge of industrialized distillation. As a consequence, by the 1950s *mezcal* producers in Tonaya, Tolimán and San Gabriel introduced industrialized production of the drink.

Full industrialization of *mezcal* production, however, did not take root in the South of Jalisco until very recently. There are many reasons for this relatively late expansion, but three are the most commonly expressed. The first involved the appearance of bogus producers who, perceiving the great demand for the product, fabricated cheap, bootleg imitations of inferior quality. Customer dissatisfaction was the result, thus inhibiting the market. Another reason often cited was the construction of the Guadalajara-Autlán road in the 1950s. Before then, traffic between these two cities used to pass through Sayula and Ciudad Guzmán (which were relatively close to El Llano) and created a demand for the local *mezcal*. With the construction of the new road, old and regional trade centres such as Sayula and San Gabriel (the gravitational centres of the *El Llano*

communities) lost their relative importance. With their demise the market for *mezcal* also diminished, taking with it the incentive to increase productivity at the distillery. The third factor that is mentioned to have put a brake on the expansion of industrialized *mezcal* production was the over-supply of agaves, the raw material needed to produce the liquor. Prices for agave fell, and most farmers discontinued their cultivation to seek employment in the US during the *bracero*⁶ programme of the 1960s. Despite remittances sent by migrants to their home communities, this had a tremendous impact on the economic development of places such as Tonaya, Tolimán and Tuxcacuesco which had as much as 75% of their arable land sown in agaves.⁷ As a consequence, most of the distilleries founded in the 1940s and 1950s had disappeared from the landscape.

This situation was altered when a new, paved road was built between Autlán and Ciudad Guzmán in 1974. With the road, local strongmen (who objected to it) lost some of their trade-based power. Free from the grip of *caciques*, the local population of these isolated areas was suddenly able to buy cheaper agricultural inputs and obtain higher prices for their products (especially maize and chilies). This meant that more cash circulated within the communities (*caciques* used to invest their profits in Guadalajara's real estate market), which in turn had a positive effect on *mezcal* demand.⁸

Mezcal production has since expanded enormously, and presently the product is sold in both national and international markets.⁹ Today, a relatively small number of producers are concentrated in a small geographical area that comprises the municipalities of El Grullo, Tonaya, San Gabriel, Tuxcacuesco and Tolimán. Out of a total of 27 producers, 21 have operating permits and 6 distil *mezcal* illegally (that is, they are not registered). Apart from these producers, there are some 5 to 10 resellers who "baptize" most of the *mezcal* made by illegal producers (and some of the legal ones) by bottling the product and providing it with their own sticker. Most producers have industrialized their production through the use of hermetically sealed cauldrons in which agaves are cooked with the injection of pressurized vapour, aluminum fermentation tanks, copper stills, fossil fuels, bottling machines and the like. Most distilleries produce more than one brand of *mezcal*, and each brand is offered in a variety (three to five) of gradations, ages and, of course, prices. The size of the enterprises, as well as their output, varies greatly: whereas the owner of the smallest illegal distillery obtains 200 litres of *mezcal* every so many weeks and employs only one casual labourer for harvesting, the largest firm has an output of 30,000 litres a week and 58 labourers on the payroll (most of them women at the bottling and packaging plant), not including 3 secretaries, a lawyer and an accountant. Three producers are presently exporting *mezcal*, and others are ready join the lucrative export market as well¹⁰. To-day, the larger *mezcal* producers (especially in Tonaya) form a new power elite and have replaced the traditional trade-

based local *cacicazgos*. Some of them have held office as municipal presidents (especially in the late 1970s and early 1980s), but at present prefer to promote strawmen to these positions to represent their interests. Indeed, these distillers have strongly benefitted from the networks developed by their predecessors in which a market for *mezcal* was established and standards were created.

Along with the developments sketched above, a set of convergent interests involving producers, suppliers of inputs, and consumers has been created. This has resulted in a strongly localized standardization of relationships and of *mezcal* qualities. It is a standardization that would take great efforts to destroy because of its momentum. In fact, the crisis that affected Mexico in the early 1990s and, especially, the virtual collapse of the economy at the end of 1994 has left the sector relatively unscathed.

Problematizations: perceived obstacles to the development of the market for *mezcal*

In the foregoing section we have seen that *mezcal* producers live in a world that was constructed long before them. Hence their goals are embedded in, or are a continuity of, historical processes. This, of course, is not to suggest that 'the past' should be seen as somehow determining the future direction of *mezcal* producers' endeavours. Rather, it means that - to a certain extent - producers' strategies are related to what has historically proven to be possible or impossible. The producers' 'universe of the possible', so to speak, is informed by past situations that are either remembered personally, passed on orally or, importantly, remembered collectively through inscription in the technologies utilized, or in such intermediaries as (tacit) skills. Thus, for example, although there exists no explicit rule about the way in which agave hearts should be threshed, in practice it would not be sensible to switch from electric mills used at present, to ox-driven threshing stones as was common before. Likewise, there is no specific rule that requires producers to provide their product labels with seductive designs. But, in order to go back to a situation in which *mezcal* would "sell itself" and no product labels were needed would entail great costs, and the clientele would certainly diminish. The point, then, is that all the actors and intermediaries making up the *mezcal* *collectif* have inscribed in them a 'way of doing things' that is difficult to ignore if producers wish to turn (or maintain) their projects into successful ones.

Having said this, however, one should add that 'things can always be done otherwise'. Indeed, a cat in gloves catches no mice, and 'doing things otherwise' is a basic characteristic of entrepreneurs, as Schumpeter (1934) showed long ago. Through painstaking trial-and-error, producers

incessantly vie for alternatives that may enhance their market position. This they do by constantly *adding* actors and intermediaries to the already existing *collectif*,¹¹ and sometimes - though not often - by redefining the character of inscriptions present in existing intermediaries. The projects of whomever is not skilled enough in adding and redefining will never become an obligatory point of passage and will - as the history of *mezcal* shows - be eliminated from the game.

Where does this addition (and redefinition) of actors and intermediaries into already existing *collectifs* come from? In the final instance, probably from intuition¹²: knowledge of present conditions, and insight into possible developments thereof. These result in a goal or set of goals to be achieved, and are in turn translated into a potential 'script' or 'problematization': that is, the roles to be played by different actors and intermediaries (existent or to be devised) if the goal is to become real. Without doubt, the main goal of *mezcal* producers is closely linked to the market. Production and distribution of the liquor is commoditized to a great extent, and in order to increase market share producers have to face the *perceived obstacles* of the market head-on. As an effect, different strategies crystallize. One particular producer may, for example, try to increase profit through product differentiation, while another one may try to achieve the same goal by concentrating on the production of quality *mezcal*. In the process, of course, the goals may themselves change (e.g. a producer may decide to 'technify' production). In this way, the composite agent or *collectif* grows and its complexity increases through the addition of various social, economic, political, technical or natural elements.

Of what, however, did the 'perceived obstacles' of the market consist? To be sure, they were of a heterogeneous nature, but nevertheless took the form of specific accusations towards the 'social' ("lack of collective organization" or "lack of trust"); the 'political' ("political unwillingness"); the 'economic' ("lack of capital"); the 'technical' ("faulty machines"); the 'natural' ("poor quality of raw materials") and even the 'supernatural' ("unwilling Gods").

Instances in which such accusations could be observed abounded. In the case of denouncement of the 'social', for example, most producers agreed that the main reason for the underdeveloped state of their businesses - as compared to the businesses of their cousins, the producers of *tequila* - was their lack of union and collective organization.¹³ Because of this, they reckoned, they were not in a state to minimize financial and fiscal risks through, for example, collective bargains with commercial banks or with the Tax Ministry. Also, lack of collective organization was said to bring about huge variations in product quality - which was seen to have a negative impact on consumer confidence. Underlying the absence of collective organization, most agreed, was the lack of trust among

individual producers. Thus, for example, producers never supplied production or market data to competitors, even though many of them were related by kin or through *compadrazgo*. In fact, many producers saw competition as a form of individual revenge, and only rarely would cooperation be sought. A case in point was NAFINSA's initiative halfway through 1993 to start an *Empresa Integradora*.¹⁴ After an initial meeting, most producers immediately alleged that this form of collective enterprise would only serve the interests of a few. For example, two *mezcal* producers from Tonaya were imputed to be willing to participate only because they intended to use potential loans from NAFINSA to pay off their (huge) individual debts. These debts ensued from previous commercial credits earmarked for the commercialization of *mezcal* and for the purchase of cattle, but which were partially detoured for the acquisition of luxury automobiles for themselves and kin, and holiday trips to Europe and the U.S. Remarkably, in this instance a complex, hybrid phenomenon encompassing 'social' components (buying cars for relatives), 'economic' elements (debts) and 'natural' ingredients (cows) was reduced to the merely 'social': particular individuals were accused of being untrustworthy. But other examples in which complex phenomena were attributed to distrustful individuals also existed. For example, the largest producer of *mezcal* from Tonaya distrusted all competitors (including his own brother) ever since he had been kidnapped and two of his agave fields burned down. Yet another Tonaya producer was utterly suspicious of his labourers whom he considered listless and treacherous creatures pursuing their own interests. Or the most highly-technified producer attributed a 'traditionalist'¹⁵ attitude to fellow producers and questioned any possibility of formal collective action. Here, again, 'distrust', 'suspicion' and 'tradition' had many faces and linked many different actors from different domains, but were in practice attributed to particular individuals.

In the same way, so-called 'political' obstacles were blamed for the irregular nature of the market for *mezcal*. Thus, for example, 'unwilling' inspectors of the Forestry Department were accused of the temporary closure of a distillery in which wood to fuel stills had been obtained illegally; tax inspectors were charged of being intolerant when issuing fines in cases of untimely payment of taxes; local politicians were considered to be 'unwilling' by demanding that producers pay social security for employees. Or regional politicians were blamed for not effectively lobbying against *mezcal* producers from Oaxaca who launched an initiative to obtain *denominación de origen* ("appellation controlée") only for their product.¹⁶ Or national legislators were accused of charging a 15% sales tax on top of an already existing special duty on alcohol¹⁷ - which, according to producers, was unconstitutional - or for endorsing volatile credit policies. Interestingly, in these cases the 'political' obscured

or black-boxed a complex set of factors that led to the use of wood obtained illegally (and the equally complex process of decision-making with which Forestry Department inspectors were faced), the failure of producers to comply with legal requirements, the consideration of regional politicians to endorse or reject an initiative by *mezcal* producers from Oaxaca, the ideologies underlying the plans of national legislators, and so on.

Likewise, so-called 'economic' obstacles hid complex, heterogeneous processes from view. Thus lack of capital, lack of access to formal credit channels, high interest rates, shortages in the supply of inputs, deficient marketing infrastructure, high financial entry thresholds for the export market,¹⁸ the powerful position of intermediaries,¹⁹ and rising labour costs due to social benefits, were all held responsible for hindering the successful expansion of business. Clearly, as in the case of 'social' and 'political' impediments, any one of these 'economic' villains implicated a large number of other accomplices that did not strictly belong to the domain of the economic. And the same was true for all those 'technical', 'natural' and 'supernatural' impediments that were said to plague producers. Thus 'technical' issues such as leaking gas burners and clogged pipes were held culpable for a sub-optimal distillation process. Or 'natural' felons such as 'bad' soil texture, insufficient rain or excessive heat were made responsible for the low sugar contents of some agaves. Or 'religious' actors such as San Ramón (in charge of not letting gossip spread) could not prevent certain "business secrets" leaking out - despite monetary offers at Church and hours of praying. Or forces of the occult would thwart a *tatema*²⁰ - even though the producer had planted a cross on top of the agaves to keep the Devil from "peeing" on them, thereby halting the hydrolysis process. Indeed, the perceived obstacles were never purely 'economic', 'political', 'social' or 'technical'. Rather, they were nothing but black boxes.

Attacking black boxes through heterogeneous means.

As I spelled out in the previous section, *mezcal* producers' problematizations often took the form of accusations towards black boxes. Once these black boxes were 'known' - once accusations found a target - strategies had to be devised to remove them: the villains had to be brought to task. Thus, in 1991-92 an attempt to bypass 'social' obstacles (i.e. lack of collective organization) was made through the establishment of an informal *mezcal* producers' union in Tonaya. The general objective behind it was that, by agreeing on minimum prices, price control would be possible. The union, however, was short-lived as producers tended to sell below agreed prices, asking customers not to pass on the word. Also,

some producers would send 'spies' to monitor competitors and gather information about who was buying with whom.²¹ As an effect, existing distrust was exacerbated. The end result, then, was that although producers associated collective organization with increasing countervailing power *vis-à-vis* the Tax Ministry and banks, distrust and a set of deeply engrained practices turned out to be stronger. Other unmanageable actors included *mayoristas* (wholesale purchasers) who were impossible to beat without producers entering into some form of alliance through which they could offer some form countervailing power.

Likewise, 'economic' obstacles (constant lack of capital to expand production and, especially, low availability of credit due to the volatile financial situation the banks found themselves in)²² was tackled through heterogeneous strategies. One such strategy involved the specialization of productive activities. This was evident by the fact that producers - most of whom previously engaged in a number of other, unrelated agricultural activities and animal husbandry - were increasingly selling their grazing and arable land as well as their agave fields²³, thus redirecting resources to the production of *mezcal* and investing in the 'modernization' or technification of their distilleries. This technification was based on innovations that were taken over from 'external' actors: namely, the highly technified producers of *tequila*.²⁴ Thus the distillation process has evolved from a relatively straightforward design²⁵ into a more complex process - both technologically and socially - akin to that used in elaborating *tequila*. For example, most producers nowadays distil *mezcal* through the use of pressurized boilers, serially connected stainless steel fermentation tubs and a complicated set of filtering devices. Larger producers, for their part, have copied a procedure widely utilized in the production of *tequila*, and which consists of recirculating the hot water from the still through the fermentations tanks - thus increasing the temperature in the tanks and decreasing fermentation time from something over a week to a mere three to four days. Although there is a huge difference between distilleries in terms of their technological setup, these modifications have allowed for a wide availability of skills and technological know-how concerning *mezcal* production. Successful innovations are quickly diffused through direct advice from the original developer, by way of gossip, or through the continuous switching of distillery personnel from one producer to another. The rapid diffusion of innovations, know-how and skills - apart from reducing the technological gap between firms - effectively increases their ability to react to market changes. For example, when sales of quality *mezcal* plummeted in 1992, one producer quickly reacted and successfully started selling his liquor in the same bottles he was using for export purposes. Within a year, five fellow producers bought second-hand, rudimentary bottling machines and multiplied the sales of their quality *mezcal* as well.

This technification was often accompanied by a second strategy: the 'externalization' of the production process (cf. Benvenuti 1989; van der Ploeg 1990). Thus, whereas only a few years ago producers tried to keep direct control over their businesses by owning their own agave fields and utilizing self-made implements and machinery, nowadays this situation is increasingly making way for a fragmentation of the production process, that is, the delegation of tasks to parties outside the distillery proper. Thus an extra-regional network of suppliers of raw materials, a range of intermediate products, and a variety of producer services have emerged. We have, for example, middlemen selling agaves from the Tequila and Los Altos region. These middlemen take advantage of the presence of many producers concentrated in a relatively small geographical area, and do not risk being left with an unsold perishable product since they are virtually certain to find a buyer. This lowers costs for *mezcal* producers who would otherwise have to pay for individual transport of agaves. Other important suppliers include specialized water purification factories in nearby El Grullo which, having soft lime water ideal for the fermentation process, send daily tankers to Tonaya and Apulco at a fraction of the cost involved for an individual producer wishing to dig deep wells 500 feet deep. Also, a variety of producers of plastic and glass bottles cater specially for the *mezcal* sector. Here too, distillers profit from relatively low prices as a consequence of the economies of scale involved in bottle producers being able to plan ahead and send only full containers to the *mezcal* producing area. Likewise there is the emergence of a supportive network of specialized producer services. The list of services includes specialized repair and maintenance shops, accounting offices, fax and photocopying facilities, notary publics, business and financial planning, legal advisors, and tax and financial services. These services, which are often shared, would otherwise be unaffordable for the smaller firms.

A third strategy followed by producers to counter 'economic' problems - such as dependence on consumer preferences - has been that of product diversification. Thus most distillers presently cater for different types of consumers in different markets by offering *mezcal* that differs in appearance, quality and price. In their quest to reach new consumers, distilleries nowadays produce two, three and even four different brands of *mezcal*, each brand coming in different price (and quality) ranges.

Specialization, fragmentation, and diversification of production have called for a reorganization or realignment of the technical and social division of labour at the firm level.²⁶ In other words, labour relations have been redesigned to accommodate to the needs of the changing character of the production process. Thus, for example, a decade ago no clear separation existed between the different tasks to be performed at the distillery, and labourers were skilled in performing a variety of different duties. Nowadays the general picture is different in that most distilleries

have separate distillation, bottling, and distribution units, each encompassing a variety of different tasks. Larger firms, in turn, tend to have their own plantation and administrative departments. Along with these changes there has been a shift towards the use of more specialized, skilled labour for administrative tasks, for the management of the actual distillation process, and for the distribution and sale of *mezcal*. Not all tasks, though, are specialized, and semi-skilled work is utilized for the harvesting of agaves as well as for bottling and packaging purposes.²⁷ Clearly, the shift in the character of the production process has not been a straightforward operation, and producers have utilized a variety of strategies to cope with labour problems related to this shift. Thus, for example, most semi-skilled and unskilled work at the bottling and packaging departments is carried out by women. This presented some problems, since it was not unusual for women to go home unexpectedly because of a sick child, or to feed the youngest one. And, as a consequence, and with few exceptions, producers nowadays prefer to hire women with grown up children. This way, absenteeism is efficiently controlled.²⁸

A fourth strategy to solve 'economic' obstacles center around a reduction of labour costs. Thus, for example, there is not one single producer with all his employees on formal contracts. In fact, only administrative personnel, distributors and workers in charge of the distillation process are given contracts with full social benefits (social security, SAR²⁹, INFONAVIT³⁰). Most employees are hired 'informally', that is, on a casual basis, and payment can be in cash or kind. Thus salesmen are generally given a commission on sales, and most workers at packing and bottling plants are paid in cash and do not obtain benefits of any kind. Others such as agave harvesters are also paid in cash, but producers tend to 'bind' them morally through gifts of *mezcal* or by letting them have a small part of the maize harvest for home consumption. In the case of labourers not receiving full social benefits, producers may sometimes offer to cover labourers' (and their families') extra expenses such as unanticipated doctor's bills or even expensive surgical treatment. These latter arrangements, however, are open to negotiation and labourers are not treated equally.³¹

A fifth strategy to counter 'economic' obstacles is that of an emergent, inter-firm division of labour. This division, which by the way is not consciously pursued,³² arises in the interstice between cooperation and competition. This sort of inter-firm division of labour may arise when, for example, a specific producer obtains an order of 'commercial' *mezcal* but does not have enough bottles for the shipment. In this case, the producer may turn to the competitor and take over a yet unlabelled quantity of standardized, plastic bottles. Likewise, when a producer - for whatever reason - does not have enough *mezcal* in stock to deliver an order, it is quite common that he will buy *mezcal* in bulk from a competitor who has enough stock and is not expecting a large order at that point in time. In

this case, the competitor's unbottled product is graded to meet specific characteristics (i.e. by adding artificial flavouring or colouring, alcohol or water to it), bottled, and provided with the label of the end producer. Clearly, not all producers engage in this sort of practice which presupposes a good relationship between the partners to the exchange. The practice itself, however, has led to the emergence of a number of small-scale - mostly 'illegal' - manufacturers who partly derive their existence from their specialization as *maquiladores* (contract distillers) for one or more of the larger firms. This incipient inter-firm division of labour between larger and smaller enterprises benefits both. Larger producers, for example, may buy a truckload of jerrycans of 96% alcohol at wholesale markets to be used later in the distillation of 'commercial' *mezcal*. Although they may not need all of the alcohol at once, buying in bulk is advantageous to them because it lowers transport costs. Small producers in turn benefit from the bulk purchases of their larger colleagues by buying modest quantities from them (five to ten 20-litre jerrycans), thus ending up paying a much lower price (sometimes as much as fifty percent) than they would when stocking from local merchants. Other, more 'covert' or 'involuntary' forms of cooperation resulting from this increased inter-firm division of labour are apparent when, for example, a large customer asks a distributor of brand X to bring along a certain amount of 'commercial' *mezcal* from the competitor on his next visit. The distributor may then pass on the request to his employer, who - in order not to give away the client's name by placing the order directly with the competitor - may then proceed to emulate the competitor's product. This can be done by grading the taste of his own *mezcal* to match that of the specific competitor, 'stealing' his labels³³, and attaching these to his own bottles. This has the effect of creating a productive structure from which all profit, and in which the delivery of *mezcal* in near and far away markets can be met at short notice and at great speed.

What, however, is entailed in the removal of the obstacles referred to above? What we see here is that a problem that is attributed to be of an 'economic' nature (e.g. "lack of capital to reinvest") has been (partially) solved through both 'social' and 'technical' means. In the process, a realignment of all elements involved in the *collectif* has been brought about. Thus the procurement of capital has been brought about, for example, through a rearrangement of social relations between producers and *ejidatarios* with whom new labour and sharecropping agreements have emerged.³⁴ Or technical innovations, such as the introduction of mills or aluminum fermentation tanks, have speeded up the production process - in turn allowing for a rearrangement of the inter- and intra-firm division of labour. These rearrangements, which may differ from producer to producer, are (re)created, reproduced and inscribed not only in the sociality of daily practice but also in the materiality of money, *mezcal*,

maize harvests or legal contracts. Indeed, the resolution of so-called 'economic' obstacles is mediated through all sorts of means within the realms of morality, health care, insurance, trust, and so forth.

Translations: adding complexity to the *collectif*

In the foregoing sections, I made the point that specialization, externalization and diversification of production, as well as the ease of diffusion of technologies and the creation of backward and forward linkages, are phenomena that are general for the *mezcal* sector. Each of these different processes, and the way in which they work themselves out in particular settings, can be labelled *processes of transformation*. But what exactly are these processes of transformation? What is entailed when one talks of specialization, product diversification, or the fragmentation of the production process? Most studies on innovation processes that have outcomes similar to those portrayed in the case of the *mezcal* sector bypass these questions and merely refer to the evolution or trajectory of transformation processes in terms of changes between two points in time. By not addressing the question of the content of the transformations themselves, their specific dynamics are rendered invisible. One needs then to delve further, and understand the actual character, the content, the dynamics of transformation. By this I mean that one needs to pay attention to the way in which heterogeneous elements are re-combined, translated or associated differently with one another. In other words, one needs to address the way in which the problems which are perceived to hinder *mezcal* producers' goals are tackled, giving rise to a shift of goals in the process. By such a shift is meant the reconfiguration or re-association of social, political, and economic alliances as well as skills (and their distribution) and techniques of production. Hence the understanding of the dynamics of transformation entails a focus on the way in which a chain of associations is modified.

Before examining this question, let us first go back to the transformations of the *mezcal* sector themselves (specialization, externalization, diversification etc.). What do they consist of? So far, I have argued that the content of these transformations can be seen as emerging from a reconfiguration of the *collectif* of actors that make up the '*mezcal* sector'. Thus the social, the economic, the technical and so on are related, associated differently with one another. But there is an additional point that has to do with the qualities of the *collectif*. Individual actants and, indeed, the whole *collectif* are not transformed merely by a process of reconfiguration. Each move, each strategy also involves the addition of new actants to the *collectif*. So, for example, when producers delegate tasks they used to carry out themselves to others it is not enough to state

that relations with these 'others' have been articulated. The reason is simple. These 'others' did not exist previously: they had to be constructed from scratch through processes of problematization, *interessement*, enrolment and mobilization. Externalization thus not only implies a shift from a situation in which producers obtained agaves from their own fields through the mobilization of their own or their labourers' efforts, but also involves the unanticipated *addition* of new actors to the *collectif*: local and extra-local *ejidatarios* and *pequeños propietarios* (private landholders), middlemen (and their transport) and so forth, have been incorporated, implicated in the process. Similarly, product labels, middle-aged women working in packaging plants, stainless steel fermentation tanks, notary publics, water purification factories, oak barrels, accountants, different types of bottles etc. all play a crucial role in the process of transformation. Specialization, externalization and diversification of production thus not only mean a qualitative shift in relations, but also a quantitative increase of the *collectif*.

But focusing on all the new actors brought into play is not enough to comprehend the nature of transformation. We need also to be concerned with the distributed effect of transformations. In other words, one needs to consider the people and things who/that initially conspired against *mezcal* producers' goals, but finally became favourable to them (and vice versa) through the transformations. To take an example: women who were previously very much against anything to do with *mezcal* for the simple reason that their sons and husbands spend hard-needed cash on drinking, now earn some cash at the *tavernas* - while their loved ones still get drunk. Or bacteria that opposed quick fermentation of agaves become - through intermediation of hot water - collaborators in a more efficient fermentation process. The contrary procedure also obtains: agave harvesters who worked for their boss have been made jobless by *ejidatarios* sowing, tending and harvesting their own agaves. Or independent middlemen have to make place for company distributors who are on producers' payrolls. Former harvesters and distributors condemn the changes, and have no kind words for their former employers - while *ejidatarios* and official distributors rejoice in the new situation. The picture, however, would not be complete if we only focused on the displacement of people by transformations in the *collectif*. It is equally important to consider the role of all those things that formerly were in favour of their employers, and now conspire against their bosses' strategies. Thus deep burning holes made to fit large quantities of agaves of different qualities now obstruct producers' plans to elaborate smaller batches of *mezcal* for different markets. Or capital investments in technology that have not yet been redeemed now stand in the way of newer, and often more expensive, investments. The point is that, when talking of transformations, one has to take into account that these unfold unequally,

distributing properties in a contingent way. What was once against producers' goals may now be in their favour, and what was once in their favour may now work against them. By not considering these shifts, these distributions, one will never be able to grasp the nature of change, and instead be doomed to cast a unilinear, often deterministic, light on socio-technical transformations.

As we have seen above, following the qualitative and quantitative changes of *collectifs* - and their distributed effects - brings us some way into understanding the nature of transformations in the *mezcal* sector. But the account is still insufficient, for it does not address changes that may affect the state of the actors composing the *collectif*. Indeed, through the passage of time actors (both human and non-human) find themselves endowed with new properties. For example, the female bottlers who have joined producers' strategies are not the same women any more. They now have some money of their own - even though their men still drink profusely. But perhaps by elaborating a bit further on an example from Chapter Two clarifies the point. It is the case of Matilde - a marginal producer of *mezcal* from San Gabriel - who, back in the 1970s, used to sell unbottled liquor at his distillery to local customers and passers-by only. His goal thus was the identification of local consumers willing to put down a certain amount of money for his product. Then, in 1978, the attainment of this goal was obstructed by the passing of a federal health law that prohibited the sale of 'unidentifiable' liquor in bulk. For Matilde, this meant that from then on he had to take a triple detour in order to achieve his goal of selling *mezcal*. First, he had to legalize his product by registering with the Federal Taxpayers' Registry and the Ministry of Health. Second, he had to provide public evidence of his legality through the purchase (and design) of product stickers. And third, he had to find suppliers of bottles on which to adhere his product stickers. Matilde went through these detours in a matter of months, and was once again able to reach his objective: to sell *mezcal*. After the detours, however, Matilde's *mezcal* was not the same any more. It was now *mezcal-in-a-bottle-with-a-sticker*. This made the product transportable, in due time changing the character of Matilde's goal. Official registration, product stickers and bottles (and, later, distributors) allowed for new links that did not exist before, and a new goal emerged: to identify consumers in distant places. Effectively, a *translation* of the consumer, a transformation of the goal, had taken place. The local, known consumer who dropped into the distillery with his own receptacle was amplified, transformed, shifted into the distant, unknown consumer who could be seduced through official (and other) legends on a product sticker appended to a bottle. Note, also, that in this vignette the process of translation is symmetrical. The identity of *mezcal* is different when it is bottled and provided with a sticker. Likewise, the identity of Matilde has changed when associated with

bottles and stickers. He is not any more a producer of illegal *mezcal*, but a producer of legal *mezcal* that can be sold in far-away localities. Hence one could say that Matilde is *another subject* because he is now not only associated with *mezcal*, but also with bottles and product stickers. Symmetrically, bottles and stickers are now *different objects* because they have entered into a relationship with Matilde and his *mezcal*. Indeed, as Latour (1994a:33) suggests, neither subject nor object are fixed entities. Both change their properties when they become a gathering, a *collectif*, a hybrid actor made up of people-and-things.

Attention to the change of state of actors in a *collectif*, together with an interest in the quantitative and qualitative alterations thereof, takes us one step further in understanding how producers mobilize and hold together the pieces of which they are assembled. However, the picture would not be complete if we did not address the fact that, as producers change their goals, they also change the matter in which these goals are concretized or inscribed. In other words, we have to look at the way in which beings substitute one another in the process of transformation. How, for example, bottling machines come to replace people - doing the job quickly and reliably. Of course, Marxists have taught us long ago that in the final analysis, it is we - human actors - who make machines. But to put it like this is problematic, for it suggests a world made out of two species: humans and objects. Yet - and this is one of the arguments of this thesis - the matter is much more complicated. Producers of *mezcal*, for example, are not anymore alone in the world. For sure, they are made up of feelings, cognitive capacities, cultural frameworks and the like. But they are also made up of the objects they utilize to achieve their endeavours. Producers of *mezcal* are hybrid beings. Hence it is crucial to understand how these hybrids, these collective or de-centred actors,³⁵ change their properties in time. How objects or subjects mediate in the construction of subject-objects - what Latour (1993) calls 'quasi-objects'. In the case of the *mezcal* sector, examples abound. To illustrate the argument, let me go back to an example I developed at some length in Chapter Seven. León, a producer from Toluimán, wished to reduce the hydrolysis time *without* altering the characteristic flavour of his *mezcal*. This meant that the use of a common innovation used by fellow producers - *calderas* or hermetically sealed chambers in which agaves are cooked with pressurized vapour - was out of the question for *calderas* modified the taste of the final product. In the end - after a lengthy struggle with all sorts of elements - León devised a mechanism through which agaves were burnt faster while retaining their typical properties in terms of taste. In the process, however, humans were replaced by objects, while at the same time the function of some objects were replaced by other objects. Thus the arduous work of loading and unloading stones, wood, and agaves into the hole each time agaves needed to be burnt was displaced by a relatively simple device

made up of bricks, tiles, metal grids, a door, and a tunnel. Some of the characteristics of his labourers were thus *delegated* to these objects, while at the same time some of the properties of these objects changed the character of the tasks (labour!) to be performed. What we see, then, is that León constructed a new assembly of people and things that maintained the same function (burning agaves) but in different materials.

The quantitative and qualitative changes of the *collectif*, the change in the properties of the actors involved, and the delegation of action to other materials take us a long way into an understanding of the character of transformations of *mezcal* production. However, a last - but crucial - factor that can easily be overlooked comes from the packaging or 'blackboxing' of the way in which different human and non-human actors have been enrolled in the *collectif*. Thus casual observers - such as myself - but also participating actors tend to ignore the complex sets of struggles and negotiations whose effect has been the rise of a relatively consolidated sector. But why is it that these networks, these configurations, tend to be unclear and hidden from view? The answer, as Law (1992) suggests, is that relatively consolidated networks can often be *simplified*. In other words, "if a network acts as a single block, then it disappears, to be replaced by the action itself and the seemingly simple author of that action. At the same time, the way in which the effect is generated is also effaced: for the time being it is neither visible, nor relevant." (*ibid.* p. 385; emphasis in original). Indeed, actors involved in *mezcal* production do not - and cannot - cope with endless complexity. Take, for example, middle-aged women operating a bottling machine. They represent a point in a sequence of action - taken for granted mediators determined by their function. They have become a silent package that is part of a larger whole. Simplified resources to be handled at will by producers. The strategies and tactics, the efforts to integrate them into the *collectif* has in practice been deleted from view. To state this more generally, the effect of the network of *mezcal* production is that the mediations through which producers, *ejidatarios*, middlemen, product labels, bottles, labourers, notary publics, fermentation tanks, oak barrels, and so on are rendered commensurate disappear. The work is packaged, simplified, blackboxed. In other words, the process by which heterogeneous actors come to conform a relatively homogeneous *collectif* becomes opaque. Fragile, contingent existences turn into stable essences, routines, taken-for-granted.³⁶

The five steps - quantitative and qualitative changes of the *collectif*, the changing properties of the actors involved, the delegation of action to other materials, and black-boxing - are all crucial (cf. Latour 1995). Together, they allow us to understand how different actors become aligned - that is, how 'something' which was not there before gains

momentum and makes place for 'something' new. The processes referred to above, however, should not be seen in isolation from one another. Yes, the *mezcal* sector develops by shifts and substitutions, but producers, *ejidatarios*, middle-aged women, middlemen, technological artifacts, and legal arrangements evolve too. The *mezcal* sector, then, is like a word in a sentence. It is connected to other words in a single syntax that unites producers, artifacts, drink, and so on. Take out one word and the sentence is rendered meaningless. Bracket technology and you obtain isolated, static human beings. Bracket human beings and you obtain an assembly worthy of a museum, but impotent to produce *mezcal*.

Mezcal: a (relatively) strongly co-ordinated collectif

The modifications in *mezcal* production - which I translate in terms of specialization, externalization and diversification of production; changes in the division of labour; reconfiguration of labour relations; the emergence of an inter-firm division of labour and the creation of extra-regional networks; as well as a quick diffusion of innovations, know-how and skills - are held in place by the addition or emergence of a set of agreements. Like words in a sentence, interactions between actors in the *collectif* are codified by a set of rules, norms and conventions. The latter - which are always partial, amenable to review, and changing - are the product of past interactions. These regulatory principles may steer present and future action, and may be tacit (as in custom) or explicit (as in written laws). These rules and conventions, moreover, come in a multiplicity of forms and coordinate different domains.

Some of these rules and norms deal with the identity of actors. For example, permits from the Tax Ministry and the Ministry of Health attribute *mezcal* firms with the right to produce drink and put it into circulation. In the same way, a letter of credit from a bank allows one and only one actor to make use of the bank's facilities. More informal regulations, however, also exist, such as the unwritten rule that *mezcal* producers will not market their product under the name of *tequila*. In all these cases, the identity of actors is regulated: only those producers who are formally registered are justified to make and sell *mezcal*; a bank's form allows an actor to claim a loan; an unspoken agreement defines the identity of *mezcal* producers as just that - and not as producers of similar *tequila*.³⁷

These rules and conventions often also deal with the issue of who is supposed to do what, and under what circumstances. For example, working conditions, social benefits and payment - who is supposed to do what? - may be regulated either through explicit, contractual agreements or implicit, customary law based on local cultural constructs. The latter will only rarely be addressed in a straightforward manner, yet any devi-

ation from them will immediately call into question the behaviour of the actor trespassing the rules. Such is the case in the operation of the market for *mezcal*, where price controls and the passing on of important information is subject to local cultural standards. Both implicit and explicit norms and conventions have the effect of delimiting and regulating the universe of possible actors, their identities, as well as their responsibilities. In other words, implicit and explicit rules and norms codify interaction - even though some of them may be longer-lasting than others, and more or less open to change. Also, several norms and conventions may be in operation simultaneously. Thus relations between, for example, producers and labourers may be shaped by conventions that apply to the domain of the market (e.g. the salary level), fictional kinship (are they *compadres* or not?), the political (e.g. Union membership), the legislative (e.g. eligibility for social security and welfare), the organization of the enterprise (e.g. the need to have only trustworthy labourers perform certain activities), and so on.

The regulatory processes referred to above can, as proposed by Callon (1992), be termed *forms of coordination*. The latter may be of a general or a local character. Forms of coordination which apply to anyone involved in the *collectif* embody general definitions - such as the conditions under which credit may be obtained from a bank, official operating permits, accountancy forms and practices, or standardized technical objects such as distillation stills. Yet other forms of coordination are of more limited scope, and apply only locally within the *collectif* - that is, they lose their validity outside of the network that spawned them. Examples of local forms of coordination could be agreements on prices of products, conditions of payment negotiated with input suppliers, settlement of disputes with retailers or middlemen, rate of interest for loans obtained outside the official bank circuit, tacit understandings about the degree of inter-firm co-operation, and the like.

The distinction between general and local forms of coordination is important because it allows one to gauge the relative resilience of interactions between the different actors of the *collectif*. Thus, when a *collectif* has added on local norms and rules to general regulations one can speak of a strong coordination. Inversely, a weakly coordinated *collectif* is one in which no local rules have been added to procedures generally followed at any point in time. When coordination is weak, interactions between actors are relatively unpredictable. When it is strong, actors' 'universe of the possible' is limited, and developing interactions may be less constrained by regulatory frameworks. Clearly, the distinction between general and local coordination is of an abstract character. In reality, however, it is relatively easy to find instances of rules and regulations which are limited or more wide in scope. In the case of *mezcal*, a number of local rules has been added to the range of general conventions existing at any given moment. Hence - and especially if compared with

the case studies on firms in Chapters Four, Five and Six - the *mezcal collectif* (producers, consumers, suppliers, distributors, artifacts etc.) can be characterized as one with a relatively strong coordination.

Convergence

As I mentioned in Chapter Two, the degree of convergence of a network of *collectif* results from its degrees of alignment and coordination. In the case of *mezcal*, there is a relatively high degree of both alignment and coordination - and hence of convergence. Let us take the example of an unsatisfied client who returns a bottle of *mezcal* to the store where it was purchased. The owner of the store knows the distributor to whom he must in turn complain. The distributor, on his part, knows how to formulate the problem to the producer of the said *mezcal*. Finally, the producer will set out to solve the problem by translating the latter into its constituent parts: was the quality of the agaves not good enough? Was the *mezcal* not aged sufficiently? Eventually, the source of the problem can be located, and corresponding action be taken. In this case, the interdefinitions of actors seem to converge, that is, there seems to exist some common ground on which collective action can be taken.

Now, the point with the degree of convergence is that it allows one to make statements about the feasibility of the firms involved in the *collectif*. Are *mezcal* producers' firms feasible? On what was said above on convergence, the answer is yes. Having said so, however, I immediately need to qualify my answer. Yes, *mezcal* firms are feasible *but only to the extent that they are able to translate and coordinate the collectif*. I build in this caveat because convergence is a necessary but not a sufficient condition for feasibility. In other words, a convergent network may allow for the emergence of feasible firms, yet this is not the same as stating that *all* economic components of the *collectif* are feasible. Thus, as I showed at length through the case of *mezcal* distribution (Chapter Eight), not all actors composing the *collectif* can be said to have feasible enterprises. It is only those who are pulling the strings - those who coordinate - who do. Feasibility, then, is a distributed characteristic of a convergent network.

In the case of the *mezcal collectif*, it can be concluded that the activity of making and marketing *mezcal* - either by large- or small-scale, legal or illegal producers - is a feasible venture. But there is an additional caveat that needs to be introduced here: the *activity* of producing *mezcal* may itself be feasible, but from this it does not follow that *mezcal* producers operate feasible *firms*. This has to do with the actors' insertion into other networks or *collectifs*. For example, the *mezcal* producer *and* cattle owner from Tonaya (see above) may be pulling some strings in the relatively convergent *mezcal* network, yet he is pushed around in the

networks that span the production, marketing and consumption of beef. Both, then, should be taken into account when making statements about the feasibility of firms.

Momentum

Feasibility - and its distribution - however, is a temporal condition. Therefore, we need to ask the question: how durable is feasibility? To this end, I use the concept of *momentum*. The concept refers back to that of translation, and suggests that the latter has been 'locked into place'. Adapting Callon's (1991:149-50) notion of *irreversibility*, the momentum of a translation depends on two things:

- (a) the extent to which it is subsequently impossible to go back to a point where the translation was only one amongst others; and
- (b) the extent to which it shapes and determines subsequent translations.

How can specific translations (such as externalization, specialization and so on) succeed in resisting and eliminating other possible alternatives? This depends on the *durability* and *robustness* of these translations (Callon 1992). Both durability and robustness are, above all, inscribed in intermediaries. Let us take the example of a *mezcal* producer opening a credit line at a bank. Once the operation is legally sanctioned by some form or document, it becomes difficult if not outright impossible for the parties to withdraw from the agreement and go back to the beginning of the transaction, when multiple alternatives for obtaining credit may have been open to the entrepreneur. At the same time, this translation may shape the future decisions of the entrepreneur. Thus he can set out to attain specific goals that were not possible without the credit, while at the same time remembering to fulfil his contractual obligations with the bank. In this case, a legal document assures both durability and robustness, albeit only to a degree: the entrepreneur could always get involved in alternative, emergent courses of action which could not have been forecast at the outset. This is a matter that cannot be determined *a priori* but which can only be decided by following the producer in his actual practice.

Not all intermediaries, however, guarantee durability or robustness. Let us take the example of Juan Arias, who at the time of my study was having trouble with the export of his *mezcal* to California. The situation was as follows. The *mezcal* passed the border legally, and was sent to his cousin in Sylmar, in the Los Angeles area. Officially, the cousin took care of distributing the *mezcal* to liquor stores only, since he did not have a

selling permit. Most liquor stores, however, were operated by Iranians and Armenians who were difficult to convince to sell a product they did not know. Hence Juan Arias' cousin sold the larger part of the *mezcal* directly to consumers. In this he was "covered" by an Armenian owning a liquor store who befriended him and provided the invoices. This setup had been working fine for over three years (although Juan Arias complained that "for every bottle my cousin sells, he drinks three for free"). Then, at the beginning of 1994, an inspector from the IRS (Internal Revenue Service) paid a call to the friendly Armenian, and cast doubts about the large quantity of *mezcal* boxes he was supposedly selling. The Armenian, afraid that the matter might be followed, decided to cut down drastically on the number of boxes he allowed Juan Arias' cousin to sell under cover of his invoices. This example shows how the intermediary (invoices) was relatively durable, but not at all robust: when an actor (IRS) challenged the legality of the setup, the enterprise crumbled and new ways of selling *mezcal* in the US had to be devised.³⁸ Hence a certain configuration or translation may run smoothly for a time, but this is not in itself a guarantee for the future. Again, durability and robustness cannot be established *a priori*. Nevertheless it can be speculated that Juan Arias' export venture subsided because the links between his cousin and "the market" turned out to be relatively weak when put to the test. In the end, these links - which consisted of little more than invoices, a brittle reciprocal trust relationship with an Armenian, and a relationship with consumers that was not sanctioned by the law - were not durable and robust enough. The example, then, suggests that there is a relationship between durability, robustness, and the number of actors involved in a specific translation. Had Juan Arias' cousin had more links (e.g. more liquor store owners willing to cover-up his activities in the same fashion as the Armenian, or a permit to sell liquor himself), then the whole operation would have been more difficult to challenge by the IRS inspector. Indeed, one could posit that it is more difficult for a competing translation to impose itself in a situation in which more and more actors are associated with one another through durable and robust intermediaries.

This is exactly the case at Apulco, the production site of Arias' *mezcal*. There, in the early 1960s, Jesús Arias took over a distillery that was out of function. In the mid 1980s, his four children (Juan, Luis, Chuy and Suzana) took over operations and gradually technified production. Each of the siblings now has its own market. The eldest, Chuy, has the Guadalajara region; Luis operates in Colima; Juan dominates the coast of Jalisco and is in charge of exporting, and Suzana caters for the Ciudad Guzmán market. Sales are on the rise since demand is higher than supply, and sometimes pick-up trucks stand in line in front of the distillery to load the liquor. The enterprise itself is split in three locations. At the distillery (behind the church) *mezcal* is actually distilled; on one of the corners of the main *plaza* 'export', 'quality' and *añejo* (mature) *mezcal* is bottled and

labelled, while 'commercial' *mezcal* is bottled on the opposite corner of the same *plaza*. At the distillery the hearts of agaves are cut and stored. From there, up to 9 tons of cut agaves are taken to a cauldron. Depending on the type of *mezcal* to be distilled, different varieties are steam-cooked with steam that is injected into the *caldera* from a gas-fuelled central heating plant connected to two separate gas tanks of 20,000 litres each. This way nothing is lost due to burning (as in the traditional way of cooking agaves; see Chapter Eight), and a homogeneous product is obtained in 22 hours (instead of 72 if cooked in a hole). From the cauldron the cooked product is taken to an electric mill to obtain the *bagazo* or threshed agave fibres to be fermented, which is subsequently brought to three 5,000 litre, stainless steel tubs. Next to the mill there is the remains of a large centrifuge used to extract the saps from the *bagazo*. This machine is no longer used as the centrifugation process affected the taste of the final product (it made *mezcal* taste like *tequila*).

From the tubs - which are heated by recirculating hot water coming from the still in order to decrease fermentation time from seven days to a mere four - the fermented *bagazo* is transported through huge hoses to a 2,000 litre stainless steel still or alembic for distillation. Distilled *mezcal* is then collected into a 2,500 litre plastic container to level the percentage of alcohol). The *mezcal* is then filtered and put into plastic jerrycans of 20 litres each to be taken to the two different bottling plants by a pick-up truck. Before actual bottling, export-quality and the *añejo* variety are first left to mature in wooden barrels - anywhere between three days and three months, depending on demand (the 'special' variety is not matured). Then the product passes through five filters, and is bottled in previously cleaned bottles through a machine that fits 6 bottles at a time. The bottles are then sealed, labelled, put into individual cases (in the case of export *mezcal*), packed in 12-litre boxes and stored to await distribution. The bottling of 'commercial' *mezcal* is somewhat different, as the product comes in four types of flasks (each coming from a different producer). Some 25 labourers participate in the whole production process.

What we see in Apulco is that a specific way of organizing and ordering production has taken shape in the course of some 30 years. As with the majority of *mezcal* producers, the productive organization of *mezcal* has been subject to a trend in externalization, product specialization and diversification, an increasing division of labour, and so on. This trend is difficult to defy by different, alternative trends (e.g. going back to activities which are unrelated to the production of *mezcal*; returning to a point where all tasks - including the manufacture of necessary inputs - are performed at the distillery itself; or a replacement of specialized, inflexible labour by flexible labourers skilled in a variety of tasks). The reason for this impossibility to go back is that the production process is based *not only* on informal agreements (that are difficult to enforce!) on who should do what, when, or how. It is *also* inscribed in a number of

durable and robust artefacts such as alembics, calderas, stainless steel containers and pick-up trucks; and legal arrangements such as contracts with input suppliers which make people carry out specific actions. In short: unlike Juan Arias' export venture, at Apulco the production process is held together through durable and robust intermediaries (machines, legal documents) as well as less durable and robust ones (people, skills). These intermediaries have been associated with one another through trial-and-error over time, and their attributes have been finely tuned so as to make them compatible.

Durability and robustness help one to understand why it is sometimes difficult, if not outright impossible, to return to a situation in which a trend was only one out of many possible ones. However, these concepts tell us little about the extent to which future trends are shaped or predetermined. To what extent, for example, does product specialization - which attributes and distributes roles to different actors, and defines which problems should be tackled and which not - render certain actions predictable or indispensable? A central concept for analyzing possible future trends is that of *skill*. Skill indicates the process by which, through gradual learning, the different elements involved in a *collectif* come to depend on one another. Thus, in the example of product specialization at the Arias' enterprise, women employees cannot bottle *mezcal* without the bottling machine; *mezcal* of specific characteristics can only be distilled by specialists who have received particular training; *mezcal* distributors' trade bind them to putting the liquor into circulation. Symmetrically, things have to be *adapted* (the corollary of human skills) to suit one another. Thus, in the case of León's basin (see Chapter Seven) the artefact is designed to dovetail closely with the taste and preferences León attributes to consumers; Matilde's product labels have to conform to national legislation; Juan Arias' large centrifuge has to be made compatible with consumer taste (which in the end cannot be achieved).

Skills, adaptation, robustness, durability: they are part and parcel of *collectifs* that gain momentum and become standardized. They predetermine, influence, or circumscribe whatever one wishes to build in the future. "The past engages the future", so to speak. And, what is important in terms of feasibility: the more finely-tuned humans and nonhumans are - through skills and adaptations - and the more actors are bound through robust and durable intermediaries, the higher the chance that their collective acting - *mezcal* production - becomes a feasible one.

Conclusion

This Chapter examined one instance of network building in a rural area of Western Mexico. The expansion of this network was described through

the use of the concept of *collectif* (Callon and Law 1995). This concept differs from the notion of network usually encountered. It contrasts sharply with economists' notions of a 'technical network' in that it does not reduce the dynamics of production to mere associations between things that are only marginally connected to people. It also differs from the notion of 'social network' used in sociology and anthropology in that I emphasize the materiality of human interactions. A *collectif*, then, focuses on the composite nature of relationships, paying attention not so much to the actors themselves, but to interactions between them.

The *collectif* described in this Chapter thus includes *mezcal* producers, labourers, financial institutions, consumers, *ejidatarios*, government bodies and so on, as well as a host of nonhuman intermediaries. Each of these actors is a crucial ingredient in the production of *mezcal*. I argued that this *collectif* encouraged transformations with regard to product specialization and diversification, externalization, inter- and intra-firm division of labour, and the diffusion of innovations and know-how amongst producers of *mezcal*. Furthermore, these transformations coincided with the appearance of input suppliers and parties providing new and second hand equipment and spare parts; a rapid supply of products at short notice; the arrival of distributors willing to sell in both national and international markets; specialized financial and accounting services; as well as the emergence of a pool of skilled labourers.

Instead of imputing the expansion and transformation of *mezcal* production to the mechanisms of an increasingly globalized society or an overarching economy, I have chosen to analyse how this *collectif* developed. I argued that, in order to understand the feasibility of *mezcal* firms, one needs to de-scribe the alliances *mezcal* entrepreneurs enter into, and the ways in which these evolve. This was done through a short historical overview of the expansion of the market for *mezcal*, followed by some contemporary changes of the *collectif*.

In a nutshell, I argued that the expansion and transformation of the *mezcal* network had to do with five different, though interrelated processes. First, it was due to the addition of new, human and non-human beings to the *collectif*. Second, it was a result of the enrolment of people and things who/that initially conspired against *mezcal* producers' goals, but finally became favourable to them. Third, it involved a qualitative change in the properties of the heterogeneous actors involved in the *collectif* itself. Fourth, the *collectif* expanded through a substitution of beings, that is, the delegation of human properties to non-humans. Finally, the transformations were made possible by means of an effective packaging or black-boxing of the actors making up the *collectif*. This way attention was given to the interrelationship between the technical and the social.

What characterized this interrelationship, I argued, was a strong degree of alignment and co-ordination amongst the actors making up the *collectif*, as well as a relative standardization of the actor-network as a whole. As an effect, *mezcal* firms showed a high degree of feasibility - inscribed both socially through a language of the market, trust, and organization; and technically through the circulation of durable and robust intermediaries.

Notes

1. This part draws extensively on Muriá (1990) and Luna (1991).
2. A fermented beverage obtained from the heart of another type of agave.
3. Outlet store under government supervision.
4. Many municipalities heavily protested against this measure because the only official site (*estanco*) in New Galicia where distilled products could be sold was seen as a centralizing move that effectively prevented these places from levying taxes and pursuing their own development. This collection of taxes through the sale of (above all) *vino mezcal* was not trivial. For example, by 1672 the Governor of Guadalajara alleviated the city's water shortage through the construction of an aqueduct that allowed transport of the liquid from Chapala lake 40kms away. This costly operation was fully financed by tax revenues from the *estanco*. Another example is Guadalajara's magnificent *Palacio de Gobierno* (one of Guadalajara's most impressive colonial buildings), the first half of which was built with *mezcal* money coming from the *estanco*. In 1785, in order to support the export of peninsular spirits, King Carlos III prohibited the production of local liquor. This prohibition was partially lifted in 1795, five years after the completion of the building.
5. It took some time, though, before these differences in name became officially acknowledged. By the beginning of the 20th Century, nearly one hundred years after *tequila* was a burgeoning term, official statistics still referred to both *tequila* and *mezcal* as *vino mezcal*. Today, *tequila* is widely understood to be a different product from *mezcal*. This difference is mainly based on the deodorization process of *tequila* by which it loses the somewhat harsher flavour characteristic of *mezcal*. In their respective production areas, however, confusion still exists as both *tequila* and *mezcal* are simply referred to as *vino*.
6. A US program started in 1964 that for a time officially allowed Mexican labourers to work in the agricultural sector.

7. Agaves have the characteristic that they grow on extremely poor soils. Thus when production was given up, no alternative crops were found. Until well into the 1970s, the municipalities of El Llano (San Gabriel, Tolimán, Tuxcacuesco and Tonaya) figured among the poorest in the State in terms of per capita income.
8. Some of the *mezcal* producers also opposed the road as they feared that, with it, the State (taxes, quality control) would arrive.
9. In Mexico *mezcal* from El Llano is distributed in the states of Jalisco, Colima, Aguascalientes, Guanajuato, Zacatecas, Michoacán, Nayarit, Sinaloa and Sonora. In the U.S. it is sold in Washington, Oregon and California.
10. Negotiations are currently ongoing with distributors in Venezuela, Colombia, Chile and Costa Rica (with which Mexico has a Free Trade Agreement or will soon sign one).
11. For this reason alone, the term *collectif* is superior to that of 'system': The size and scope of a *collectif* - in contrast with the size and scope of a system - are never fixed since complexity (in terms of the number of actors and intermediaries circulating within a *collectif*) only increases in time. Of course, if a *collectif* is successfully challenged, then it may fall apart and lose in complexity.
12. 'Intuition' is here seen as a relational concept: actors always set their plans in accordance with their position vis-à-vis other actors.
13. This had historical grounds. Past attempts to achieve collective forms of organization had proven to be too weak to generate positive effects. For example, all officially recognized *mezcal* producers joined the CRIT (*Cámara Regional de la Industria del Tequila*) in the early 1980s. Initially, there existed some hope that the association would help them further their interests. However, *mezcal* producers soon became aware that the association did not protect their interests at all, thus making the initial reason for *mezcal* producers to join the association ill-founded.
14. This programme, supported by SECOFI (Ministry of Trade and Industrial Promotion) and NAFINSA, was geared to unite producers of different sectors in order to allow the sector to have more thrust, while respecting the autonomy of individual enterprises. This could be achieved through the acquisition of common computing facilities, the contracting of common financial and accounting services, the setting up of quality control mechanisms, and the common search for export possibilities.

15. By this the producer meant that fellow producers had a 'domestic' type of administration (that is, they did not utilize accounting techniques or market analysis); generally showed a tendency to mix all sorts of businesses with *mezcal* production proper; and were not eager to 'modernize', i.e. technify their production process.

16. The initiative was turned down in 1993 by CANACO (National Chamber of Commerce). The reasons for this however were foreign to regional politicians from Jalisco who strongly supported the name *tequila* and considered local *mezcal* producers as potential 'troublemakers' for *tequila* producers. Had it been approved, then *mezcal* producers from other regions (including those from Jalisco) would have been compelled to call their product differently.

17. This special duty or IESPS (*Impuesto Especial Sobre Productos y Servicios*) was introduced to raise funds after the September 1985 earthquake that hit Mexico City and other areas of the country. In essence, the IESPS is a duty of 44.4% that is levied on spirits containing less than 50% of alcohol (cigarettes and gasoline are also affected). Larger producers in particular saw IESPS as a huge obstacle to the development of their enterprises. This was due to the fact that the duty was levied on invoiced sales (that is, the seller - not the producer - pays). As a consequence, final consumer prices increased. Many distributors, however, would carry expensive (that is, registered and invoiced) *mezcal* from larger producers as well as inexpensive, often 'illegal' *mezcal* for which there existed no invoice (see the case of Pablo in Chapter Eight). This way, final consumer prices were relatively higher for 'registered' *mezcal* than for the inexpensive, 'unregistered' one. This situation obviously allowed some room for manoeuvre to small-scale, 'illegal' distillers of spirit - to the detriment of larger-scale producers.

18. For example, Seagram's of California, U.S., was sympathetic to the export initiatives of the two largest producers of *mezcal*. In fact, the company was willing to distribute the product at its regular outlets, but demanded that a publicity campaign - financed by the producers - be mounted first. The campaign would have easily run into 6-digit figures, and both producers abandoned the idea for lack of means.

19. When selling on a larger scale, producers often fell into the hands of *mayoristas* (large scale intermediaries) who asked for huge rebates and long-term periods to pay. This led to constant problems concerning reinvestments and of liquidity vis-à-vis suppliers (who were generally paid cash). As one producer put it: "They [intermediaries] have got me by the balls: they pay me every two to three months, but I have my commitments with my labourers, suppliers and the Tax Ministry every month."

20. Burning of agaves in a pit in order to hydrolyse sugars.

21. When customers left the distillery these 'spies' intercepted them and took them to their employer, who would then ask for his competitors' price and offer a lower one.

22. Yearly interest rates oscillated between more than 125% in 1976 to over 18% in 1994 (the lowest figure since 1972). The amount of credit that could be obtained through alternative channels - kin, local moneylenders - could never cover the capital needs of an expanding *taverna*. Moreover, most producers considered 'informal' credit to be too expensive. The only producer who once was in a position to obtain substantial financial backing was Federico Paz, producer of *Tonayán*, who was approached in 1990 by a Japanese consortium willing to invest close to USD 3,000,000 and export the spirit to Japan and the EU. Federico however declined because the move would have virtually made him a minor shareholder of his own company.

23. The two largest producers, however, pursue a different strategy and are reconverting their properties into agave fields. The reason for this is to secure control over supply and demand of this prime resource, as well as the economic potential of the crop: agave is a very profitable crop provided one has enough capital to wait 6 to 10 years for the plant to mature. With profits in the range of \$3,500-4,000 USD per hectare/year, unirrigated agave is second only to sugarcane production (which requires irrigation) and the extremely risky horticultural crops such as tomatoes, melons or watermelon.

24. *Mezcal* and *tequila* are nearly identical products, and innovations in one productive sector quickly find their way into the other. Diffusion is facilitated by the fact that most personnel in charge of managing the distillation process of *mezcal* have had prior experience working with *tequila* companies. Of course, the sheer volume of capital investments made by *tequila* producers makes it impossible for *mezcal* firms to adopt certain techniques.

25. Traditionally, vapours emitted from the wood-fuelled copper cauldron were condensed against a wooden plate hung above. From there, *mezcal* dripped along a tube into a can.

26. Thus, for example, labourers used to producing only one type of *mezcal* must now be skilled in different production processes.

27. On-the-job training is provided in the administrative and distillation departments, while semi-skilled work is learnt quickly by casual labourers accompanying more experienced ones. Upward mobility does exist, but is confined to the skilled and semi-skilled categories.

28. Such a strategy can only arise in a situation of labour surplus. Such is the case in the *mezcal* producing region of the South of Jalisco, where few alternative income opportunities - especially for women - exist.

29. *Seguro de Ahorro para el Retiro* is a retirement pension. Employers' participation amounts to 2% of the monthly gross salary of the worker.

30. *Instituto para el Fomento Nacional de Vivienda para los Trabajadores*. The employers' share in this housing fund amounts to 5% of the workers' gross monthly income.

31. Most labourers prefer to have 'informal' arrangements with producers - solidified through *compadrazgo* - rather than formal contracts. In fact it seems that formal contracts are only given to those workers who are more visible to 'outside' authorities such as the Ministry of Health or the Tax Ministry.

32. See the prior section on the obstacles encountered by *mezcal* producers in creating some form of collective organization.

33. This can be achieved by asking, for example, a female employee to procure them through a sister or a relative working for the competitor.

34. As *mezcal* producers sell their agave fields to third parties who in turn convert these agave fields into grazing land, a need emerges to procure agaves elsewhere. Here *ejidatarios* jump into the opportunity by turning formerly idle communal land into agave fields. Of course, different arrangements between producers and *ejidatarios* exist, the most typical one being that of sharecropping: *ejidatarios* provide land and (paid) labour while producers contribute with seedlings and fertilizers. The harvest is then usually split by half, and producers buy the *ejidatarios'* part at current prices.

35. De-centred actors in the sense that their agency is not to be found in te individual agent, but rather that it is distributed among a host of heterogeneous materials.

36. This is not to say that simplification or blackboxing is final. It may always be subject to contestation. Actors can, at any moment, resist or betray the *collectif*. Their enrolment is a precarious matter.

37. The name *tequila* is protected. It may only be used for distilled *mezcal* produced in the State of Jalisco and in a number of adjacent municipalities in the States of Nayarit and Michoacán. In principle, then, any *mezcal* originating in Jalisco can be called *tequila*. In practice, however, changing the name of *mezcal* into that of *tequila* is full of problems. Amongst the reasons given, the most important one is that *mezcal* - due to its insufficient technification - could never compete with *tequila* in terms of name, quality and price (this is one of the reasons why *mezcal* producers prefer not to change their relatively 'backward' production methods.) But there is another reason as well: the NOM (*Norma Oficial Mexicana*) for *tequila* is much stricter than the NOM for *mezcal* (for example concerning the degree of maturity of agaves at

harvest time, the alcohol content of the final product, ageing time in oak barrels, and so on). Thus *tequila* producers would have a relatively easy time in sending inspectors for example to Tonaya to close down those firms which attempted to emulate the name only *tequila* producers feel entitled to.

38. Although in principle Juan Arias' cousin could himself start a liquor store, in practice financial constraints were too high. For example, the permit to operate a liquor store in the Los Angeles area ran at about USD 60,000 at the time of the study, and large sums would have to be invested to rent a locale and buy stock. In addition, running a liquor store is a pretty risky business as such stores are easy prey for robberies - a circumstance Juan Arias' cousin at least did not prize very much.

CHAPTER 10

CONCLUSION

In Chapter One, I stated that the general aim of this thesis was to cast new light on the dynamics of small firms in general, and on their feasibility in particular. To do so, I argued that one first had to avoid four interrelated epistemological pitfalls common to most studies on small-scale enterprise. The first one was the separation between the knower and the known - that is, the creation of a divide between 'things in themselves' (such as small-scale enterprise) and knowledge about these 'things' (such as the different social science discourses about small firms). The roots of this pitfall, I maintained, could be traced back to the Enlightenment's *Critique* which created a division between Nature (the world of nonhuman objects) and Culture (the world of human subjects). Once the Great Divide was put into place, a division of tasks took place between the early sciences (physics, biology, astronomy, chemistry) and relative 'latecomers' such as economics, sociology, and psychology. The former concentrated on the study of Nature, while the latter concentrated on Culture. This Great Divide was later paralleled within the social sciences by separating Culture into two different spheres: The Economy (to be studied by economists) and Society (to be examined by 'the rest': historians, sociologists, psychologists, and so on). Emulating the Great Divide between Nature and Culture, The Economy was conceived as a part of Nature - that is, it functioned according to its own, rational, internal, and natural laws. In contrast, Society represented non-economic, irrational behaviour often based on ideological and religious beliefs, and tarnished by human politics.

Once Economy and Society were separated and purified from each other's influence, it became possible to posit the idea of a *homo economicus* (the rational, atomized, self-interested individual who is minimally affected by social relations in his/her market competitive behaviour) and a *homo sociologicus* (whose behaviour is norm- or rule-guided) to provide a philosophical underpinning to both sides of the divide. In due time, the debate over the role of small-scale enterprise in development was cast in terms of which side of the Divide was espoused. Thus while adherents of *homo sociologicus* suggested that small-scale enterprise had an important say in economic development because of the relations of reciprocity and redistribution they entailed, proponents of *homo economicus* put forward that sustained economic development could only be achieved by replacing the irrational behaviour of petty entrepreneurs by the laws of The Economy. These laws, which were seen to be objective, natural and evolutionary, dictated a strategy of accelerated industrialization based on capital intensive, large firms utilizing modern technology. The debate, as history shows, was 'won' by the

homo economicus position. 'Won' in the sense that, for decades, official policies towards the small firm sector took it as their task to replace 'tradition' with 'modernity' in order to achieve economic development. Clearly, however, evidence from Third World countries and the Western World alike shows that development based on such discriminating policies is much too simplistic. This thesis addressed this simplicity by not taking Great Divides (such as that between Nature and Culture, or that between Economy and Society) as its starting point.

The second epistemological danger this thesis tried to sidestep is that entailed in *essentialism* or the idea that so-called social, economic, or natural phenomena exist prior to becoming scientific objects. Thus, in this thesis the analytical utility of notions such as 'the market', 'development', 'capitalist relations' or 'post-Fordist production regimes' - to name a few - is questioned. The reason for this is that these terms do not enjoy a pre-existence of their own. Rather, they reflect classificatory practices that have been constructed in the course of the history of the social sciences, and which are in turn based on the Enlightenment's *Critique*.

The third epistemological trap this thesis aimed to avoid is that of *dualism* or the position that two different types of economies coexist within a single spatial setting. This is often apparent in theories about the role of small firms in development when reference is made, for example, to an 'informal' or 'traditional' sector next to a 'formal' or 'modern' one, 'pre-capitalist' next to 'capitalist' relations, or 'mass production' next to 'flexible specialization'. In this thesis I took the stance that these divides or even 'common sense' assumptions cannot be the starting point for a meaningful discussion of small firms. Like the Great Divides referred to before, dualism is a construction from the side of the knower: it reduces the practices of small-scale entrepreneurs to 'either/or' categories.

Finally, this thesis wished to escape the epistemological risk of crude *reductionism*. By this is meant the apparent necessity of first establishing a relation between dualist categories, then propelling one of these categories as the 'driver'. This pitfall becomes apparent when, for example, the economic and institutional environment are seen to 'drive' small firms, when the 'informal sector' is presumed to be dependent or subordinate to the 'formal' sector, or when 'commoditized' relations are believed to increasingly shape individual decisions. Again, I tried to avoid this type of reductionism - if only because, in the last instance, it can only lead to tautology.

In this thesis, then, I tried to avoid the pitfalls of dualism, essentialism, reductionism and the separation between the knower and the known by way of a threefold strategy. First, I did not fix the identity of entrepreneurs *a priori*. Instead, I followed them in their strategies and stratagems - exploring how, in the process, they constructed their identities (and that of others). In other words, I suspended assumptions about

the nature of small firms. Second, I did not impose traditional analytical categories upon the practices of entrepreneurs. Rather, I described small firms without reducing entrepreneurs' practices to social (or economic, or political, or cultural) attributes alone. Finally, I avoided making assumptions about a backdrop of social, economic, cultural or technical factors affecting small firms, and started from the notion that the definition of the backdrop was itself at stake in action. In other words, I did not draw upon an externalist narrative and pre-established, exogenous factors to account for entrepreneurs' actions.

In Chapter Two, I developed an analytical framework that dovetailed with these three strategies. To do so, I first reviewed two theoretical perspectives (flexible specialization and the actor-oriented approach), and argued that one could retain what was good in them in order to sidestep the main shortcomings of traditional views on the role of small firms in development. More specifically, I argued that one should retain flexible specialization's idea to take networks of firms - and not the individual firm - as the unit of analysis, and adopt the actor-oriented emphasis on practice as a point of departure. Though useful, I also argued that one should go beyond flexible specialization and the actor-oriented approach on a number of issues. So, for example, I maintained that flexible specialization had only limited usefulness because of its uneasiness to accommodate anything other than *social* actors into its theoretical architecture. Likewise, the actor-oriented perspective was seen to be problematic because of its notion of agency as a property of humans. This notion ultimately assumes that things do not have agency, which in turn ran counter to my strategies as outlined above.

To accommodate my strategies, I then turned to an analytical framework that took networks and practice in earnest, but which did not start from the ontological assumptions of flexible specialization or the actor-oriented approach. Such a framework - actor-network theory - had been developed in the context of the social studies of science. However, it remained to be seen whether or not it could be usefully employed in the study of small firms. This thesis, then, was in part a struggle to 'translate' actor-network theory into the domain of small firms, and particularly, their dynamics and feasibility. The concepts I used to address these issues included: global and local networks, obligatory points of passage, convergence, momentum and *collectif*.

The conceptual toolbox I use is, admittedly, not a very large one. However, there is a certain 'elegance' in using only a minimum of concepts and assumptions in order to draw a maximum of results. After all: why resort to a gigantic arsenal of concepts - as in 'traditional' sociology - if, in the end, the conceptual toolbox becomes more complex and difficult to handle than the problem(s) one tries to resolve with it? Why use a whole

army to kill a fly? Throughout the thesis, I preferred to use an innovative, 'minimalist' theoretical framework to explore small-scale entrepreneurial projects, than to be theoretically rigorous and relying on 'correct', prescribed methodological procedures. Sure enough, I may be blamed for not having taken the burden of verification too seriously. But then I chose to say something new about small firms rather than to tread well-known theoretical paths leading to single recipes.

Findings from the case studies

In the empirical Chapters of this thesis, I sought to focus on cases of entrepreneurial projects that contrasted as much as possible in terms of their dynamics and feasibility. Thus in Chapter Four I deployed the case of Carlos, an entrepreneur involved in two projects simultaneously: *taco* vending and public transport. As the case showed, the *taco* project was able to build its own context and content, thereby enabling Carlos to sell *tacos* with a profit. In the terminology of this thesis, the project was successful in establishing itself as an obligatory point of passage - even though, in the end, the point of passage proved to be a weak one. The reason for this was that neither the inside nor the outside of the project were strongly regulated - that is, the project participated in a *collectif* that was not strongly integrated in the sense that not many rules, regulations or cultural arrangements governed interactions between participating actors. This low degree of convergence, therefore, at all times endangered the feasibility of the project.

In contrast with the *taco* business, the minibus project developed within a *collectif* that showed a relatively strong degree of convergence. A strong regulatory framework for the operation of the minibus already existed, making Carlos' work relatively easy as he did not have to build a context for his project from scratch. In fact, all Carlos needed to do was to build an appropriate local network to support the project. Carlos, as the case showed, succeeded in this and for a time the minibus enterprise proved to be a feasible and viable one. However, when actors from the global network changed the rules of the game and came forward with new expectations, Carlos could not find the room for manoeuvre required to adapt his local network and fulfil expected returns. The minibus project thus stopped acting as an obligatory point of passage between the project's global and local networks, and finally disintegrated.

Both of Carlos' projects, then, showed a trajectory in which projected plans were first materialized, then collapsed. As I tried to show, however, the putting together - or giving up - of a business cannot be attributed to any one single factor. Projects are not clear-cut events, but rather trajectories that reflect contingencies of their own. These trajectories cannot be reduced to the machinations of 'context' or to

economistic notions of success or failure. To understand them, one cannot rely solely on premade analytical categories (which is always easy); instead, one must show how all the elements related to a project are sorted out, ordered, related and held together in practice (which is always difficult).

In Chapter Five Carlos' projects were contrasted with those of Chabelo - an entrepreneur engaged in the setting up of a small shop and a bar. As the case showed, Chabelo successfully managed to build a global and a local network within which the shop project could be operated. The shop thus acted as an obligatory point of passage: it orchestrated the local network *and* controlled transactions between the local network (softdrinks, beer, groceries, etc.) and the global network (consumers, etc.). The *collectif* - that is, the relations between all the actors involved in the project - however, was a fragile one. As in the case of Carlos' taco business, the global network was not strongly regulated, and the project itself did not succeed in creating any rules of its own which could be added to practices generally followed: after all, Chabelo's shop did not significantly alter local consumption patterns.

The case of Chabelo's bar differs from the shop project in that the former never became an obligatory point of passage. For a time, the bar project succeeded in gradually building up the local and global networks that were crucial if it were to become a reality. As it turned out, however, the project was unable to add its own rules to already existing ones (think of building permits; health insurance for workers; reforms to Article 27 of the Constitution which allowed *ejidatarios* to sell their land, and so on), and hence the degree of convergence of the project's *collectif* remained low. This lack of convergence in turn made it possible for some of the actors involved in the bar project's 'script' to define their interests and roles differently - thus making off on their own and leaving Chabelo empty-handed in the process. Interestingly, the bar project nevertheless gained momentum: after it became evident that the project had failed, Chabelo could not go back to the initial situation for the simple reason that he not any more owned the *ejido* plot.

Again, as in Carlos' case, the specific trajectory of Chabelo's projects cannot be reduced to a clear-cut set of events. The projects did not become unfeasible because they were badly designed from the outset, or because a specific 'context' worked against them. Especially in the case of the bar one can see that the project gained (and lost) reality by degrees. For a time, it was feasible: all actors involved in its implementation agreed to their attributed roles. The next moment, the project seemed to be all but feasible because some of the actors betrayed or opposed Chabelo's plan. After removing obstacles, the same project would look feasible once again. And so on. The fact that the bar never became a reality is itself a contingency. It could have been otherwise, and there is

nothing in the so-called 'context' that may be held accountable for the eventual success or failure. The solution of the problem of whether or not a project becomes feasible or remains unfeasible lies in the problem itself, and is not external to it.

The case of David and Chela's store project in Chapter Six differs from those of Carlos' taco stall and Chabelo's shop in that it was never able to act as an obligatory point of passage between its global and local networks. Although for a short period the store provided its global network with a timely reward, difficulties in a successful contextualization of the project denied the room for manoeuvre necessary to construct a durable local network. In other words, problems with the 'context' impeded David and Chela to turn their project into a locus of control over transactions between the local and the global networks. The main reason for this was that, despite the forthright conditions put forward by David and Chela when taking over the store, they did not succeed in enrolling the necessary actors to fulfil the roles laid out for them. Hence, the project did not take the direction David and Chela wished. In other words: the degree of convergence between the actors involved in the project was low, and the *collectif* did not act as one enterprise.

As in Carlos' and Chabelo's case, David and Chela's project was not *in* a 'context'. Through painstaking negotiations with all sorts of actors, the project tried to give itself one. The fact that it was not able to succeed in this eventually put the feasibility of the project in question. Nevertheless, and unlike Carlos' and Chabelo's projects, David and Chela's never really gained momentum. That is, at no point was it impossible for them to go back on their steps, and neither were their future activities determined by the take-over of the store. This points to the dissimilar effects similar projects may have - effects which, as the case showed, could not be imputed to a fixed notion of context, but were intricately linked to David and Chela's negotiating skills and heterogeneous strategies.

In Chapter Seven I described the case of León, a producer of *mezcal*. León's project differed from those of the previous Chapters in that the degree of convergence was relatively high, even though it was unable to add its local rules to more general ones. Otherwise, the project achieved a momentum of its own, and acted as an obligatory point of passage by successfully constructing its global and local networks and controlling transactions between these. Thus León's project was able to control consumers of its *mezcal* by at the same time controlling the local network described by the liquor. In other words, by holding together the *collectif* (workers, collaborators, peers and so on) the project managed to simultaneously create, control and enlarge his clientele. León thus became a "good seller" (Law and Akrich, 1994) in order to create and control the

"good client". One and the other was made apparent by focusing on how the competition was held at bay, how collaborators (both human and nonhuman) were enlisted, and how workers were put in place - that is, how the different elements that make up the production, distribution and consumption of *mezcal* were made to converge.

While the projects of Carlos, Chabelo, David and Chela, and León portrayed the different ways in which these acted (or failed to act) as obligatory points of passage through the continuous work of localizing and contextualizing, in Chapter Eight the thesis took a slightly different direction. Putting less emphasis on obligatory points of passage, convergence and momentum, the Chapter instead concentrated on a theme that was only developed to a degree in Chapters Four through Seven - namely that of the relationship between projects and crucial actors from their global networks: the final consumers of its products and services. Thus, in Chapter Eight I delved further into the character of this relationship by way of a case study on Pablo, an independent distributor of *mezcal*. The main finding was that, by following this distributor in his practices, one could in fact throw new light on traditional notions about the identities of producers and consumers. So, for example, the case showed that it made little sense to talk about producers and consumers as if they had fixed identities that could be unproblematically reduced to their social or economic essences. Rather, these identities were shown to be continuously constructed, deconstructed and reconstructed in the process of *producing* and *consuming* - a process that vastly exceeds the realm of production and consumption proper. Producers and consumers, I argued in the Chapter, are thus not mere essences, but the simultaneous end product of all sorts of relations - relations which are often, if not always, mediated through objects. Thus, as the case on the distribution of *mezcal* showed, it would in fact be impossible to say anything about consumers or producers of this liquor without referring to the product itself. However, a producer is always more than what s/he makes, just as a consumer is always more than that which s/he consumes. That is, the identity of both producers and consumers is mediated through things (produced or consumed) and services (provided or used) as *well* as the complex array of skills, knowledge, and all else that is needed to produce, consume, provide or use a product or service. Thus *mezcal* did not mediate the relationship between producers and consumers of it all by itself. It needed help. It needed allies. It was here that Pablo's skills and knowledge of different domains (both of consumers' as of producers') proved crucial for - like all else - the identities of producers and consumers were negotiable.

In Chapters Seven and Eight the locus of attention were specific, small-scale entrepreneurial projects related to the production and distribution of *mezcal*. In Chapter Nine, I shifted attention away from specific projects, and further elaborated on the notion of *collectif* by way of a study of the larger network of firms engaged in the production of the liquor. Particularly, the Chapter dealt with the *collectif's* expansion and transformation, and the way in which these were given shape through a continuous realignment of so-called social, technical, economic and political elements. Both expansion and transformation encouraged product specialization and diversification, externalization of production, inter- and intra firm division of labour, and the diffusion of innovations and know-how amongst producers of *mezcal*. Underlying these processes, I argued, was the constant addition of new human and non-human beings to the *collectif*, the enrolment of people and things who/that initially conspired against *mezcal* producers' goals, a qualitative change in the properties of actors involved in the *collectif*, the delegation of human properties to non-humans, and the effective packaging or black-boxing of heterogeneous actors. Furthermore, the *collectif* was characterized by a strong degree of convergence, making it possible for *mezcal* producers to develop feasible firms.

Some theoretical implications for the study of small-scale entrepreneurial projects.

Throughout the thesis, I treated a number of cases that dealt with the enterprising endeavours of a variety of actors. However, the main aim was not to provide some type of 'heroic' account of the wheelings and dealings of Carlos, Chabelo, David and Chela, Pablo, or León and a number of his fellow *mezcal* producers. As Latour (1988b) states in his treatment of Pasteur, the idea is not to show the 'greatness' of a man, but to describe how a 'great man' is constructed. This however is problematic for two different reasons. The first one is that if one takes individuals such as Pasteur - or Carlos, Chabelo, León, etc. - to be final products or effects, then one cannot any more take them as starting points for study. If individuals are decentered subjects then how can one analyse them? And - this is the second reason - how can one frame their projects if one does not know, *a priori*, what these projects are? The first problem I tried to resolve by not assuming, *a priori*, what the essence of Pablo, Chabelo, and so on was. Doing so offered the advantage of not having to picture actors as naked, essential human beings surrounded by things. Rather, the human beings of the case studies were conceived as gatherings, as assemblies of all sorts of materials. Sure, the humans had their bodies and their souls. But if we took away their *tacos*, their *tiendas* or their *mezcal* these actors would not any more be the successful or unsuccessful

entrepreneurs I described. The entrepreneurs of this thesis, then, can be seen as *collectifs* in their own right. *Collectifs* which keep on growing (or shrinking) as new elements are added (or withdrawn) to it in order to counter whatever threatens to interfere with actors' projects.

The second problem - how to define what a project is when a project does not yet exist and is still a fiction - I addressed by following the actors and sticking to the framework and the boundaries they themselves displayed through their practices, that is, by tracing their work of globalizing and localizing. This I did by not making any *a priori* distinction between the social, the technical, the political and so on in the case studies. The narrative thus respected the frameworks and categories used by the actors themselves to describe their situation, and followed them in their work of producing homogeneity out of heterogeneity - of creating order out of disorder. This way, I was able to give a more complete analysis of action - opening up, as it were, a new way of understanding small-scale projects that is closed-off for traditional sociology.

Having said this, what general theoretical implications does this thesis have for the study of small-scale entrepreneurial projects in general? Perhaps the most compelling significance of this study is that it shows that theoretically-informed empirical cases can make a start in breaking down disciplinary walls, making it possible to grasp the essentially contingent, unfixed nature of entrepreneurial projects. Particularly, what this means is that these projects can be approached as not being economic, social, technological, or political first and foremost - as traditional sociology or economics tells us. Indeed, if entrepreneurial projects wish to become feasible then psycho-socio-legal-technical-politico-economic compromises need to be accepted. And, more importantly, what counts is not so much the exact characterization or categorization of these compromises, but rather deciding upon what needs to be negotiated when and where, and under what circumstances.

The mixing, compromising, weaving and re-weaving of the actors from the case studies furthermore suggest that traditional notions such as 'structure' are in much need of overhauling. Following the actors, it becomes clear that projects are not embedded in a structure, but rather that they are progressive concepts: there is no way to get a clear picture of them without taking into account the work of continuous, incremental contextualizing. Indeed, as the trajectories of the entrepreneurial projects of this thesis show, their form and scope undergo metamorphosis through time. And, as is also apparent, the progressive projects of this thesis are not the work of individual agents, but of composite agents (de-centered subjects) who attribute agency to a host of both social and material actors. Entrepreneurs are thus collective actors who address 'social' problems

through the mobilization of the 'technical', and who settle 'technical' problems through the mobilization of the 'social'.

Clearly, much work is still needed to refine the arguments I made. Actor-network theory was developed within science studies, and in this thesis only a first attempt was made to assess its potential in overcoming some of what I saw as the main shortcomings to the study of small-scale entrepreneurial projects. Thus, for example, I do not address one of the inherent problems of actor-network theory: that of the necessity of describing cases from the point of view of attempts to build one specific obligatory point of passage only - when clearly the situation is so that entrepreneurs may have multiple memberships in different projects and thus conduct their translations simultaneously (cf. Star 1991; Star and Griesemer 1989:389-90; see Latour's (1996) masterpiece *Aramis or the Love of Technology*, though, for a polycentric narrative). Likewise, issues relating to power were not systematically developed in the cases - even though it is obvious that as *collectifs* or actor-networks extend asymmetries are simultaneously constructed. And neither did I develop the full potential of the approach to understand the issues of spatiality that surfaced throughout the cases. And perhaps the most pressing question that this thesis failed to address was that related to representation: if, as actor-network proposes, there is no 'fixed' world 'out there' to be represented because objects and subjects are fused, then what can one represent at all? Network building only, as actor-network theory suggests? As Lee and Brown (1994:783) remark, does this not entail the trap of creating the illusion of the "final final vocabulary?" Is representation (i.e. 'comparison', 'generalization') anthropology's business, after all? Should not, evocation instead be the object of anthropology's concern, as Strathern (1991) advises?

Some policy implications for small-scale entrepreneurial projects

Without doubt, small firms (many of them often labelled as 'informal') are important because in Mexico - as in other areas of the so-called Third World - they are thriving and provide employment for the largest part of the population. As never before, their potential for sustained economic growth and welfare provision is now realized. Indeed, re-evaluations of small firms' contribution to development presently run high in the Mexican political agenda. Never before, then, has the task of understanding small firms - how they are shaped, how they shape development - been so urgent. The argument developed in this thesis represents one more step to address this urgent task. With its stress on the heterogenous nature of small-scale entrepreneurial projects, the thesis re-directs attention to an often forgotten dimension in the debate on the role of small

firms in development - namely that the technical or economic questions small firms confront are never narrowly technical or economic, just as the social or political problems they face are never narrowly social or political.

A first general recommendation flowing from this thesis, then, is the not always obvious insight that it is difficult to formulate policies to support small-scale business through social, political, economic or technical incentives alone. Indeed, as the cases show, the more one ventures into actors' behaviour, the more one is confronted with complex relationships, and the less evident it becomes to index action in specifically social, political, technical or economic terms. Hence, policies towards small firms should address the multidimensional character of action.

Related to this, a second general recommendation is that schemes promoting small firms need to go beyond treating small-scale entrepreneurial projects as isolated, self-contained entities. Instead, they should be geared to the *collectif* of actors engaged in the production, dissemination, and consumption of specific goods and services. This is not without its problems for, as the empirical Chapters have shown, one cannot generalize about *collectifs*: each one represents a specific and unique configuration of actors. To consider *collectifs* as loci for policy formulation thus calls for a different way of 'measuring' small firms.

The issue of 'measuring' the dynamics and feasibility of small firms is exactly what I address in this thesis. In doing so, I advanced a number of conceptual tools which - if one takes on board the above recommendations - may have policy implications. Thus, for example, the tool kit used in this thesis may be used to address questions such as: what small firms should be helped? How should these firms be helped? But these questions are not neutral, and hence the conceptual apparatus of actor-network theory is a double-edged weapon. For actor-network theory can show which enterprise forms are successful and thus worthy of attention in terms of political support, technical assistance, credit programs, and so on. Such an interpretation however would pay lip service to liberal policies and supply-side economics. Symmetrically, the tool kit used in this thesis offers the possibility to detect those enterprise forms which are unsuccessful, and thus aid populist policies and demand-side economics to mount an argument for the protection and promotion of these firms which are clearly not a part of the microentrepreneurial elite that knows how to take care of itself. The policy implications of actor-network theory thus vary because these implications may mean different things to different policy makers.

The policy implications of this thesis, then, involve a range of political, ethical and moral issues. What is the 'right' way to use some of the findings of the cases? There is no way of deciding this a priori, because

discerning what is 'right' from what is 'wrong' can only be established afterwards, when large constituencies have been enrolled and mobilized to endorse a specific point of view. After all, as a tool to discern feasible from unfeasible enterprise forms, actor-network theory may be welcomed by the arguments of liberal and populist policy makers alike. These, like the entrepreneurs from this thesis, are all busy trying to contextualize and localize their own political (social, technical, economic) projects through heterogeneous means. The outcome of this power struggle is also progressive and depends on the kind and the number of elements mobilized (one of which could be the tool kit of actor-network theory) as well as the strategies deployed by their opponents.

This call for epistemological relativism - not nihilism - concerning possible policies towards small-scale business does not mean that one has to give up our involvement and our commitment to a fairer world. Indeed, as Law (1991:6) puts it, "to be a relativist - to recognise multivocality - implies no obligatory commitment to immorality or opportunism... rather, it may lead us to an important form of intellectual caution: the sense that all knowledges are shaped, contingent, and in some other world could be otherwise." Maybe, then - and I hope this is not wishful thinking - by listening to what the entrepreneurs of these pages have to tell us we can come closer to understanding the dynamics not so much of success, but of the effects of its distribution.

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GLOSSARY AND ACRONYMS

<i>adobe:</i>	mud bricks.
<i>alameda:</i>	town garden.
<i>alambique:</i>	still.
<i>Alianza de Camioneros:</i>	public transport organization in Jalisco.
<i>arrendadora:</i>	credit institution.
<i>Banca de Desarrollo:</i>	Development Bank.
<i>birria:</i>	traditional goat meat dish.
<i>caciques:</i>	commonly applied to strong men in rural areas. <i>Caciques</i> are power brokers at local or regional level who accrue power by controlling rewards, such as access to information concerning legislations, and to political networks which open up possibilities of approaching important officers to deal with bureaucratic issues.
<i>Caja Popular:</i>	co-operative credit union.
<i>Central de Abastos:</i>	wholesale marketplace
<i>centro botanero:</i>	bar; usually attended by prostitutes.
<i>chúntaro:</i>	a disrespectful name applied to Amerindians from Oaxaca and Guerrero who come to El Grullo to harvest sugarcane or work in the tomato fields.
<i>corralón:</i>	confinement place.
<i>cremería:</i>	cheese shop.
<i>compadre:</i>	co-father; ritual kinsman; see also <i>comadre</i> .
<i>comadre:</i>	co-mother; quasi-kin status attained through Catholic rituals, genberally implying godmother (in baptism, confirmation, marriage or other celebrations) of the co-mother or co-father's son or daughter.
<i>compadrazgo:</i>	ritual kinship.
<i>Consumo:</i>	a co-operative store in El Grullo.
<i>cuaresma:</i>	Lent.
<i>cuesta:</i>	uphill; difficult period.
<i>ejido:</i>	a socio-legal entity concerned with the administration of land and other collective properties. <i>Ejidos</i> were established under the 1920's land reform law that followed the Mexican Revolution. The term <i>ejido</i> is commonly used to designate the geographical site as well as an organization of members.
<i>fiesta:</i>	celebration (both religious and non-religious).
<i>Hacienda:</i>	Ministry of Taxes.
<i>Mariscos:</i>	bar where drinks are accompanied by sea food.
<i>mezcal:</i>	a distilled liquor made from the heart of agave plants.
<i>mordida:</i>	bribe.

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<i>panela:</i>	fresh cheese.
<i>padrino:</i>	godfather.
<i>palapa:</i>	a wooden structure with a thatched roof made from palm leaves.
<i>plaza:</i>	central place in town.
<i>priísta:</i>	a member of the PRI.
<i>Procuraduría Agraria:</i>	Bureau of Land Affairs.
<i>quinceaños:</i>	celebration of a woman's fifteenth birthday.
<i>rancheros:</i>	people from the <i>ranchos</i> .
<i>rancho:</i>	small village or settlement.
<i>solar:</i>	urban plot.
<i>tacos:</i>	a <i>tortilla</i> filled with food.
<i>taverna:</i>	distillery.
<i>tequila:</i>	a variety of <i>mezcal</i> which originates in the region of Tequila.
<i>tianguis:</i>	ambulant marketplace.
<i>tianguistas:</i>	vendors at ambulant marketplaces
<i>tiendas:</i>	stores or shops; usually small-scale.
<i>tortas:</i>	bread filled with food.
<i>tortilla:</i>	staple made from maize dough, similar to pancakes and used in the same way that other cultures use bread.
<i>tortillería:</i>	shop where <i>tortillas</i> are made.
<i>tortilleros:</i>	wooden press utilized to make <i>tortillas</i> .
<i>unidad de riego:</i>	small-scale irrigation unit operated by water users organized in an association.
<i>vino:</i>	utilized as a synonym for distilled liquor.
<i>zafra:</i>	sugarcane harvest.

ACRONYMS

BANAMEX:	Banco Nacional de México (National Bank of Mexico).
BANCOMEXT:	Banco de Comercio Exterior (Foreign Trade Bank).
BANRURAL:	Banco Nacional de Crédito Rural (National Rural Credit Bank).
CANACO:	Cámara Nacional de Comercio (National Chamber of Commerce).
CROC:	Confederación Revolucionaria de Obreros y Campesinos (Revolutionary Union of Workers and Peasants; affiliated to PRI).
CRIT:	Cámara Regional de la Industria del Tequila.
CNOP:	Confederación Nacional de Organizaciones Populares (National Union of Popular Organizations;

	affiliated to PRI).
CNC:	Confederación Nacional Campesina (National Peasant Union; affiliated to PRI).
CNPP:	Confederación Nacional de Pequeños Propietarios (National Union of Private Landholders; affiliated to PRI).
CORETT:	Comisión para la Regularización de la Tenencia de la Tierra (Commission for the Regulation of Land Tenure).
CTM:	Confederación de Trabajadores de México (Mexican Labour Union; affiliated to PRI).
FIRA:	Fideicomisos Instituidos en Relación a la Agricultura (second-level government funding for agriculture).
IMSS:	Instituto Mexicano del Seguro Social (Mexican Institute of Social Security).
INFONAVIT:	Instituto para el Fomento Nacional de la Vivienda para los Trabajadores (Institute for the National Promotion of Housing for Labourers).
NAFINSA:	Nacional Financiera (National Financing Institution).
NOM:	Norma Oficial Mexicana (Mexican Official Norm).
PAN:	Partido Acción Nacional (National Action Party).
PRI:	Partido Revolucionario Institucional (Institutional Revolutionary Party; political party in power since 1929).
PROCEDE:	Programa de Certificación de Derechos Ejidales (Ejidal Rights Certification Programme; government institute in charge of issuing formal land titles to <i>ejido</i> -plot owners).
PROFECO:	Procuraduría Federal del Consumidor (Federal Consumer Agency).
PRONASOL:	Programa Nacional de Solidaridad (National Programme for Solidarity).
SAR:	Seguro de Ahorro para el Retiro (Pension Fund).
SARH:	Secretaría de Agricultura y Recursos Hidráulicos (Ministry of Agriculture and Water Resources).
SECOFI:	Secretaría de Comercio y Fomento Industrial (Ministry of Trade and Industrial Promotion).
SEDUR:	Secretaría de Desarrollo Urbano (Ministry of Urban Development)
SISTECOZOME:	Sistema de Transporte Colectivo de la Zona Metropolitana (Public Transport System of the Metropolitan Area of Guadalajara).
TELMEX:	Teléfonos de México (Mexican Telephone Company).

SUMMARY

The role of small firms in developing countries is a subject of continuous interest in both academic and policy circles. Small firms account for a large part of economic activity, and their employment share is remarkable. Yet, although considerable knowledge about them exists, some of the key issues concerning small businesses remain relatively underexposed or are highly debatable. One such issue is that of their feasibility. What firms are feasible? What are the conditions for their success? Is it technology choice, flexibility, innovativeness or relative size which determine the vitality of small firms? Or is it their organizational practices, or the institutional environment within which they operate that is crucial? These questions are important, because great hopes are placed on the role of small firms as a 'cure-all' for economic crisis. The present study aims to contribute towards a better understanding of small firms by answering some of these central issues in development. Although the study focuses on a number of small businesses in Western Mexico, the scope of the argument has much broader implications, and may help shed light on the dynamics and feasibility of small firms in development contexts in general.

To understand the dynamics and feasibility of small firms, in Chapter 1 it is argued that existing perspectives on the phenomenon of small firms, and the assumptions on which they are based, should be challenged. On the basis of a questioning of different theoretical perspectives, in Chapter 2 some promising analytical frameworks that provide useful insights into the study of small firms - flexible specialization and the actor-oriented approach - are discussed. Drawing upon their shortcomings, the Chapter elaborates on actor-network theory, a body of theoretical work developed in the context of the sociology of science which treats social relations as network effects. According to Law (1992:379) this theory is distinctive because "... it insists that networks are materially heterogeneous and argues that society and organization would not exist if they were simply social." Hence, from this point of view the task of sociology is to characterize the ways in which different materials are juxtaposed to create realities theretofore unimaginable. In the context of this study, the analytical framework of actor-network theory sets the stage to address the two main research questions:

- a. how can one account for the heterogeneous processes that shape the projects of small-scale entrepreneurs in a rural area of Western Mexico?
- b. under what conditions are durable (i.e. feasible) entrepreneurial projects constructed?

Chapter 3 deals with the methodological implications of the theoretical framework, and how these in turn affected the research process. In order to address these issues, a reflexive account of the research genealogy is given: why the theme of small-scale enterprise was chosen, what paths had to be

trod to obtain funding for the research, what problems were faced during the fieldwork period and, finally, how the theoretical position developed in Chapter 2 came to be adopted.

Chapters 4 through 9 address the main research concerns through a number of case studies on small-scale entrepreneurial projects. In a nutshell, the argument runs that the dynamics and feasibility of small firms are a function of three interrelated factors. First, the ability of entrepreneurs to set up and sustain a global network capable of providing a range of different resources in exchange for some kind of future return; second, the ability of entrepreneurs to use resources from a global network to build a local network with the aim of satisfying the expectations of actors lodged in the global network; third, the degree in which an entrepreneur succeeds in controlling all transactions between the global and the local networks of the firm. This does not imply that there necessarily exists a relationship between the values and significations shared by actors belonging to these different networks.

Chapter 4 takes up these dimensions through an in-depth case study of Carlos, an entrepreneur involved in two projects simultaneously: taco selling and public transport. As the case shows, the taco project was relatively successful as Carlos was able to build a global and a local network, and control the transactions between the two. However, a lack of integration between actors from both networks at all times endangered the feasibility of the enterprise. In contrast, in the minibus project Carlos did not succeed in maintaining a global network, and when actors from this network came up with new regulations the local network could not anymore fulfil expected returns and the project collapsed.

Chapter 5 displays an entrepreneur engaged in the setting up of two projects: a small shop and a bar. As the case shows, the entrepreneur successfully managed to build a global and a local network within which the shop project could be operated. However, the project turned out to be a fragile one because the entrepreneur did not succeed in regulating the transactions between both networks. In the case of the bar, the entrepreneur could not successfully link the actors from both the local and global network - let alone control their transactions.

Chapter 6 pictures a couple - David and Chela - who take over a store from relatives. The case differs from the prior ones in that the project provided its global network with a timely reward, but only for a short period. The reason for this is that difficulties arose in the contextualization of the project, which in turn denied the room for manoeuvre necessary to construct a durable local network. The main reason for this was that, despite the forthright conditions put forward by David and Chela when taking over the store, they did not succeed in enrolling the necessary actors to fulfil the roles laid out for them. Hence, the project did not take the direction David and Chela wished, eventually putting the feasibility of the store in question.

Chapter 7 describes the case of León, a producer of *mezcal*. León's project differs from those of the previous Chapters in that León's project suc-

cessfully constructed its global and local networks, and controlled transactions between these. Thus León controlled consumers of his *mezcal* by at the same time controlling the local network implicated in the production of the liquor. One and the other is made apparent by focusing on how the competition is held at bay, how collaborators (both human and nonhuman) are enlisted, and how workers are put in place - that is, how the different interests of the actors who make up the production, distribution and consumption of *mezcal* are made to converge.

In Chapter 8 the thesis takes a slightly different turn by concentrating on a theme only partially developed in Chapters 4 through 7 namely the relationship between projects and crucial actors from their global networks: the final consumers of projects' products and services. Through a case study on Pablo, an independent distributor of *mezcal*, Chapter 8 throws new light on traditional notions about the identities of producers and consumers, and shows that these identities are continuously constructed, deconstructed and reconstructed in the process of *producing* and *consuming* - a process that vastly exceeds the realm of production and consumption proper. Thus in this Chapter it is argued that producers and consumers are nothing but the end product of heterogeneous relations which are often mediated through objects.

In Chapter 9 attention shifts away from specific projects, and focuses on the larger network of firms engaged in the production of *mezcal*. In general, the Chapter deals with the expansion and transformation of this network, and the way in which it takes shape through a continuous realignment of so-called social, technical, economic and political elements. Particularly, the Chapter focuses on the way in which the network of *mezcal* firms transforms and expands in time through a) a constant addition of new human and non-human beings to the network, b) the enrolment of people and things who/that initially conspired against *mezcal* producers' goals, c) a qualitative change in the properties of actors involved in the network, d) the delegation of human properties to non-humans, and e) the effective packaging or black-boxing of heterogeneous actors. Furthermore, the network is shown to be characterized by a strong degree of convergence of interests of all actors involved, making it possible for *mezcal* producers to develop feasible firms.

The general conclusion of this thesis is that the feasibility of small-scale entrepreneurial projects is a function of the morphology of the local and global networks which these projects help build and maintain. This and some other findings that follow from the case studies are made explicit in Chapter 10. Also, this final Chapter retakes the issue of why it is important to look at the feasibility of small firms, and why the approach chosen in this study can be seen as a positive contribution for both academic and policy debates concerning the role of small firms in rural areas of developing regions. Theoretically, the significance of this study is that it shows that, through theoretically-informed empirical cases, one can avert disciplinary myopia,

making it possible to grasp the essentially contingent, unfixed nature of entrepreneurial projects. Furthermore, the study suggests that traditional sociological and anthropological notions such as 'structure' are in much need of overhauling for, as the cases demonstrate, small firms are not embedded in a fixed structure, but rather they are progressive ideas which materialize through practices, that is, through the work contextualizing and localizing objects that create social relations. As to policy concerns, this study suggests that it is precarious to formulate policies to support small-scale business through social, political, economic or technical incentives alone but that, instead policies should address the multidimensional character of entrepreneurial activity. Related to this, a general policy recommendation of this study is that schemes promoting small firms need to go beyond treating small-scale entrepreneurial projects as isolated, self-contained islands. Instead, they should be geared to the materially heterogeneous networks of actors engaged in the production, dissemination, and consumption of specific goods and services.

RESUMEN

Tacos, tiendas y mezcal: una perspectiva del actor-red hacia pequeños proyectos empresariales en el Occidente de México.

El papel de la pequeña empresa en países en vías de desarrollo es objeto de gran interés en círculos académicos y políticos. Sin duda alguna, este tipo de empresas contribuyen de una manera significativa en la actividad económica nacional, e incorporan a una gran parte de la mano de obra. Sin embargo, y a pesar de que existen muchos datos sobre el fenómeno de la microempresa, algunos aspectos centrales han recibido poca atención, o bien se prestan a diferentes interpretaciones. Uno de estos aspectos está relacionado con la viabilidad de la microempresa. ¿Qué tipo de empresa es viable? ¿Cuáles son las condiciones de éxito? ¿Son acaso la elección de tecnología, flexibilidad, innovación, o escala relativa las variables que determinan la vitalidad de pequeñas empresas? O son más bien las prácticas organizativas, o el entorno institucional dentro del cual operan estas empresas, las condicionantes del éxito? Estas preguntas son importantes debido a la creciente esperanza que se deposita en el papel de la pequeña empresa como remedio a situaciones de crisis económica. El presente estudio pretende contribuir a un mejor entendimiento de la microempresa respondiendo a algunas de estas cuestiones centrales de desarrollo. A pesar de que el estudio gira en torno a una serie de pequeñas empresas en el Occidente de México, la dimensión del argumento tiene implicaciones más amplias, y puede iluminar la dinámica y viabilidad de pequeñas empresas en contextos más generales de desarrollo.

Para entender la dinámica y viabilidad de la pequeña empresa, en el Capítulo 1 se argumenta que las diferentes perspectivas sobre el fenómeno de la microempresa, así como las presunciones sobre las cuáles se basan estas perspectivas, tienen que ser puestas en tela de juicio. En base a un cuestionamiento de un abanico de teorías sobre el papel de la pequeña empresa en el desarrollo, en el Capítulo 2 se discuten dos marcos teóricos que permiten un acercamiento promisorio al estudio de la pequeña empresa - la especialización flexible y la perspectiva orientada hacia el actor. Haciendo uso de las deficiencias de estas dos últimas perspectivas, el Capítulo elabora sobre una teoría desarrollada en el ámbito de la sociología de la ciencia: la teoría del actor-red. Esta teoría conceptualiza a las relaciones sociales como efectos de la construcción de redes. Este marco teórico se distingue por su insistencia en la heterogeneidad material de todo tipo de redes sociales, y argumenta que ni la sociedad, ni cualquier tipo de organización, podría existir si estas fuesen simplemente de una naturaleza social. Por consecuencia, desde este punto de vista, el papel de la sociología es el de caracterizar los medios por los cuales diferentes materias se juntan para generarse a sí mismas y para crear nuevas realidades hasta ese momento inimaginables. En el

contexto de este estudio, el marco teórico de la red-actor sirve como punto de partida para responder las siguientes preguntas de investigación:

- a. ¿Cómo dar cuenta de los procesos heterogéneos que dan forma a pequeños proyectos empresariales en una región rural del Occidente de México?
- b. ¿Bajo cuáles condiciones es posible construir proyectos empresariales viables?

El Capítulo 3 trata sobre las implicaciones metodológicas del marco teórico, y cómo estas a su vez afectaron el proceso de investigación. Para abordar estos asuntos, el Capítulo relata, de una manera reflexiva, la genealogía de la investigación: del porqué se escogió el tema de la pequeña empresa, que pasos se dieron para obtener fondos para la realización del proyecto de investigación, cuáles fueron los problemas que se encontraron durante el período de trabajo de campo y, finalmente, del porqué se adoptó la posición teórica elaborada en el Capítulo 2.

Los Capítulos 4 a 9 abordan las preguntas de investigación mediante una serie de estudios de caso sobre proyectos empresariales de pequeña escala. En síntesis, el argumento central de estos casos es el de que la dinámica y viabilidad de la microempresa son una función de la interrelación de tres factores. Primero, la habilidad, por parte de empresarios, de establecer y mantener una red global que proporciona al empresario una gama de recursos diversos a cambio de una remuneración futura. Segundo, la habilidad del empresario en utilizar estos recursos que le proporciona la red global, para construir una red local cuyo objetivo es la satisfacción de las expectativas de los actores insertos en la red global. Tercero, el grado en el cual un empresario logra controlar todas las transacciones entre la red global y la red local de la empresa. Esto implica que no necesariamente haya una relación entre valores y significados compartidos por actores pertenecientes a las diferentes redes.

El Capítulo 4 retoma estas dimensiones a través de un estudio de Carlos, un pequeño empresario involucrado simultáneamente en dos proyectos: la venta de tacos, y transporte público. El caso revela que, en la venta de tacos, Carlos es relativamente exitoso debido a que puede armar una red global y una red local, logrando controlar las transacciones entre estas dos redes. Sin embargo, una falta de integración entre los actores de ambas redes pone en peligro continuo la viabilidad del puesto de tacos. En contraste, en su proyecto de transporte público Carlos es incapaz de mantener una red global. Cuando los diversos actores de la red global cambian las reglas de juego, la red local deja de satisfacer las expectativas previstas por los actores de la red global y el proyecto fracasa.

El Capítulo 5 presenta a un empresario que intenta crear dos proyectos: una tienda y un bar. El estudio de caso nos indica que el empresario logra armar y mantener una red global y otra local para el manejo exitoso de la tienda. Sin embargo, el proyecto es de una naturaleza frágil ya que el empresario no logra regular las transacciones entre ambas redes. En el caso del bar, el empresario no logra relacionar a los actores de la red global con los de la red local, y menos aún de controlar las transacciones entre ellos.

El Capítulo 6 muestra a una pareja - David y Chela - que hereda el manejo de una tienda de abarrotes. Este caso difiere de los anteriores en el sentido que la tienda es capaz de generar una retribución puntual a los actores de su red global, pero sólo durante un corto período. La razón de esto es el surgimiento de dificultades en la contextualización del proyecto empresarial, lo cual a su vez niega el espacio de maniobra requerido para la construcción de una red local estable. Esto se debe principalmente a que, a pesar de las condiciones bajo las cuales David y Chela deciden manejar el negocio, no logran enrolar a los actores necesarios. Por lo tanto, el proyecto no toma la dirección requerida por David y Chela, eventualmente poniendo en peligro la viabilidad de la tienda.

En el Capítulo 7 se describe el caso de León, un productor de mezcal. El proyecto de León difiere de los casos anteriores en el sentido que León consigue construir su red global y local, y logra controlar las transacciones entre ambas redes. Es decir, León es capaz de controlar los consumidores de su mezcal a la vez que controla la red local implicada en la producción del licor. Este proceso de control se ilustra a través de un análisis de cómo León logra mantener a distancia a la competencia, de cómo enrola a sus colaboradores (sociales y materiales), y de cómo coopta a sus trabajadores - es decir, de cómo León hace converger los diferentes intereses de los actores involucrados en la producción, distribución y consumo de mezcal.

En el Capítulo 8 el presente estudio toma una ligera desviación, y se concentra en un tema que se desarrolla solo parcialmente en los Capítulos 4 a 7: la relación entre proyectos y actores cruciales de su red global - los consumidores finales de productos y servicios. Haciendo uso de un estudio de caso sobre Pablo - un distribuidor independiente de mezcal - este Capítulo proyecta una nueva perspectiva hacia nociones tradicionales sobre la identidad de productores y consumidores, e ilustra que estas identidades son construidas, deconstruidas y reconstruidas durante el proceso de *producir* y de *consumir* - un proceso que sobrepasa ampliamente el ámbito de la producción y el consumo. Es decir, en este Capítulo se llega a la conclusión de que tanto productores como consumidores no son sino el producto final de relaciones mediadas a través de objetos tales como el mezcal.

En el Capítulo 9 el estudio no enfoca en proyectos específicos, sino que analiza la red mas amplia de empresas productoras de mezcal. En

general, el Capítulo trata sobre la expansión y transformación de esta red, y de cómo esta toma forma a través de un realineamiento continuo de elementos tanto sociales, como técnicos, económicos y políticos. En particular, el Capítulo ilumina la manera en la cual la red de empresas productoras de mezcal se transforma y se expande al a) incorporar elementos humanos y materiales a la red, b) al reclutar personas y cosas que inicialmente se oponían a los goles de los productores de mezcal, c) al cambiar las propiedades cualitativas de los actores que participan en la red, d) al delegar propiedades humanas a actores no-humanos y, finalmente, e) al simplificar efectivamente a actores heterogéneos. Además, la red se caracteriza por la fuerte convergencia de intereses de todos los actores involucrados, permitiendo así a productores de mezcal desarrollar empresas viables.

La conclusión general del estudio es que la viabilidad de pequeñas empresas es una función de la morfología de las redes globales y locales que las mismas empresas engendran y mantienen. Esta y otras conclusiones que surgen de los estudios de caso se elaboran en el Capítulo 10. Asimismo, en este Capítulo final se retoma la cuestión de porqué es importante examinar la viabilidad de la microempresa, y de porqué es perspectiva que se adopta en el estudio puede ofrecer una contribución positiva a debates tanto académicos como políticos concernientes al papel que juega la microempresa en las zonas rurales de regiones en desarrollo. En lo que toca a lo teórico, la significancia del estudio estriba en el hecho que, a través de estudios de caso guiados por conceptos teóricos, se puede prevenir la miopía disciplinaria, haciendo posible así un entendimiento de la naturaleza esencialmente contingente de proyectos empresariales. Además, el estudio sugiere que nociones sociológicas y antropológicas tradicionales tales como 'estructura' están sujetos a revisión ya que, como se demuestra por medio de los casos de estudio, los proyectos empresariales no están insertos dentro de una estructura fija, sino que más bien representan ideas que se materializan a través de las prácticas, es decir, de la contextualización y localización de objetos que crean relaciones sociales. En lo que refiere a políticas de desarrollo, el estudio sugiere que es precario formular políticas de apoyo a la pequeña empresa basadas solamente en el ámbito de lo social, lo político, lo económico o lo técnico, sin considerar la relación entre estas diferentes esferas. Relacionado a esto, una recomendación general que emana de este trabajo es que los esquemas que intentan apoyar al cambio social necesitan ir más allá de una concepción que intenta aislar lo que en la práctica se da como una concatenación singular de elementos diversos. Por lo tanto, estas políticas deberían enfatizar el carácter materialmente heterogéneo que constituyen redes de actores involucrados en la producción, distribución y consumo de bienes y servicios.

SAMENVATTING

Tacos, winkels en mezcal: een actor-netwerk benadering van kleinschalige ondernemers-projecten in West Mexico.

De rol van kleine bedrijven in ontwikkelingslanden heeft altijd in de belangstelling gestaan van zowel academische als politieke kringen. Kleine bedrijven zorgen voor een groot deel van de economische activiteit en leveren een aanzienlijke bijdrage op het gebied van de werkgelegenheid. Hoewel er veel kennis over hen bestaat, blijven enkele van de belangrijkste onderwerpen omtrent kleine bedrijven relatief onderbelicht. Een van deze onderwerpen betreft hun levensvatbaarheid. Welke bedrijven zijn levensvatbaar? Wat zijn de voorwaarden voor hun succes? Bepalen technologische keuzes, flexibiliteit, innovatie of relatieve grootte de vitaliteit van kleine bedrijven? Of is het de manier waarop zij georganiseerd zijn, of de institutionele omgeving waarin zij opereren, dat van doorslaggevend belang is? Deze vragen zijn van belang omdat kleine bedrijven dikwijls gezien worden als dé oplossing voor een economische crisis. Dit proefschrift hoopt door antwoord te geven op bovengenoemde vragen het inzicht te vergroten van de rol die kleine bedrijven spelen in ontwikkelingsregio's. Hoewel de studie zich richt op een aantal ondernemingen in West Mexico heeft het theoretisch argument veel bredere implicaties. Zij beoogt een licht te werpen op de dynamiek en levensvatbaarheid van kleine bedrijven binnen de ontwikkelingscontext in het algemeen.

Om de dynamiek en levensvatbaarheid van kleine bedrijven te begrijpen, wordt in Hoofdstuk 1 betoogt dat de bestaande benaderingen van kleine bedrijven en de veronderstellingen waarop deze zijn gebaseerd zouden moeten worden herzien. Vervolgens volgt in Hoofdstuk 2 een discussie over twee veelbelovende theoretische raamwerken die bruikbare inzichten verlenen in de studie van kleine bedrijven: flexibele specialisatie en de actor-georiënteerde benadering. Bouwend op hun tekortkomingen wordt in dit hoofdstuk ingegaan op de actor-netwerk theorie, een stroming ontwikkeld binnen de wetenschapssociologie die sociale relaties als effecten van netwerken conceptualiseert. Deze theorie onderscheidt zich door de nadruk op de materiële heterogeniteit van sociale relaties, en betoogt dat de maatschappij niet zou kunnen bestaan als deze alleen uit sociale relaties zou zijn opgebouwd. Daarom wordt binnen dit perspectief de rol van de sociologie gezien als de studie naar de manier waarop verschillende menselijke en materiële elementen met elkaar in verband gebracht worden om zodoende nieuwe, tot dan toe onvoorstelbare werkelijkheden te creëren. Deze zienswijze vormt tevens de aanzet tot de twee belangrijkste onderzoeksvragen van deze studie:

- a. Hoe kan men de heterogene processen verklaren die vorm geven aan de projecten van kleinschalige ondernemers in een ruraal gebied in West Mexico?
- b. Onder welke voorwaarden komen levensvatbare ondernemersprojecten tot stand?

Hoofdstuk 3 schenkt aandacht aan de methodologische gevolgen van dit theoretisch raamwerk, en hoe deze op hun beurt het onderzoeksproces beïnvloedden. Een reflexief verslag geeft de geschiedenis van het onderzoek weer: waarom is gekozen voor het onderwerp kleine bedrijven, welke paden zijn bewandeld om geld voor het onderzoek te verkrijgen, welke problemen traden er op tijdens de veldwerkperiode en hoe is het theoretisch standpunt zoals uitgewerkt in Hoofdstuk 2, tot stand gekomen?

In hoofdstukken 4 tot en met 9 worden de belangrijkste onderzoeksvragen behandeld aan de hand van een aantal case-studies van kleinschalige ondernemersprojecten. Samenvattend kan uit deze case-studies worden geconcludeerd dat de levensvatbaarheid van kleinschalige bedrijven een functie is van drie aan elkaar gerelateerde factoren: a) het vermogen van ondernemers om een *globaal* netwerk van actoren op te zetten die bereid zijn middelen ter beschikking te stellen in ruil voor een beloofd resultaat; b) het vermogen van ondernemers om m.b.v. middelen uit het globale netwerk een *lokaal* netwerk van actoren op te zetten met als doel het bevredigen van de verwachtingen van actoren uit het globale netwerk; c) de mate waarin een bedrijf er in slaagt om controle uit te oefenen over alle transacties tussen haar lokale en globale netwerken.

In Hoofdstuk 4 worden de bovengenoemde dimensies uitgewerkt in een diepte case-studie over Carlos. Carlos is als ondernemer bij twee projecten tegelijkertijd betrokken: de verkoop van tacos en openbaar vervoer. Zoals de case toont, was het taco-project relatief succesvol omdat Carlos in staat was een globaal en lokaal netwerk te bouwen en de transacties tussen deze te beheersen. Een voortdurend gebrek aan integratie van actoren van beide netwerken bracht de levensvatbaarheid van de onderneming in gevaar. Dit in tegenstelling tot het minibusproject, waar Carlos er niet eens in slaagde het globale netwerk in stand te houden. Toen actoren van dit netwerk met nieuwe voorschriften kwamen, kon het lokale netwerk niet meer aan de verwachtingen voldoen en stortte het project in.

Hoofdstuk 5 handelt over een ondernemer die twee projecten probeert te ontwikkelen: een kleine winkel en een bar. Zoals de case-studie toont, slaagde de ondernemer erin een globaal en lokaal netwerk te bouwen waarbinnen het winkelproject had kunnen functioneren. Het project bleek echter kwetsbaar omdat de ondernemer er niet in slaagde de transacties tussen de twee netwerken te reguleren. In het geval van de

bar lukte het de ondernemer niet om de actoren van het lokale en globale netwerk te koppelen, laat staan hun transacties te controleren.

In Hoofdstuk 6 wordt het echtpaar David en Chela besproken. Zij namen een winkel over van familieleden. Deze case-studie is anders dan de voorgaande omdat het project al zijn eigen globale netwerk met zich meebracht. Slechts voor een korte tijd hebben David en Chela hiervan kunnen profiteren, want er traden problemen met de contextualisering van het project op. Deze blokkeerden op hun beurt de bewegingsruimte die David en Chela nodig hadden om een lokaal netwerk op te bouwen. De belangrijkste reden hiervoor was dat, ondanks de voorwaarden die Chela en David gesteld hadden bij de overname van de winkel, zij er niet in slaagden de actoren erbij te betrekken die nodig waren voor de rol die zij voor de actoren zagen. Het project ging niet de kant op die David en Chela wilden, waardoor zij uiteindelijk gingen twijfelen aan de levensvatbaarheid van de winkel.

León is een *mezcal*-producent, wiens case-studie wordt uitgewerkt in Hoofdstuk 7. León's project had zijn globale en lokale netwerken succesvol opgebouwd en hij beheerste de transacties tussen beide. Hiermee verschilt het project met de voorgaande. León had controle over de consumenten van zijn *mezcal* door tegelijkertijd het lokale netwerk betrokken bij de productie van de drank te beheren. Dit wordt duidelijk gemaakt door de manier waarop de concurrentie bedwongen wordt, allerlei materiële en menselijke zaken in het project worden ingelijfd en arbeiders geworven worden - dat wil zeggen, hoe de verschillende belangen die deel uitmaken van de productie, distributie en consumptie van *mezcal*, worden samengebracht.

In Hoofdstuk 8 wordt ingegaan op een thema dat in de hoofdstukken 4 tot en met 7 slechts gedeeltelijk aan de orde gekomen is, namelijk de relatie tussen projecten en de cruciale actoren van hun globale netwerken: de uiteindelijke consumenten van de producten en diensten van de projecten. Middels een case-studie over Pablo, een onafhankelijke distributeur van *mezcal*, werpt Hoofdstuk 8 nieuw licht op de traditionele opvattingen over de identiteit van producenten en consumenten. Het hoofdstuk laat zien dat deze identiteiten gelijktijdig worden gevormd, ontbonden en hergestructureerd gedurende het proces van produceren en consumeren - een proces dat veel verder reikt dan productie en consumptie alleen.

In Hoofdstuk 9 wordt de aandacht verlegt van specifieke projecten naar het grotere netwerk van bedrijven betrokken bij de productie van *mezcal*. In het hoofdstuk wordt de uitbreiding en transformatie van dit netwerk in het algemeen behandeld. In het bijzonder bestudeert dit hoofdstuk de manier waarop het netwerk van *mezcal* bedrijven in de tijd verandert en uitbreidt door a. een constante toevoeging van menselijke en materiële elementen, b. de inlijving van mensen en dingen die oorspronkelijk samenwerkten tegen de *mezcal* producenten, c. een kwalita-

tieve verandering in de verhoudingen van de actoren betrokken bij het netwerk, d. het over brengen van menselijke eigenschappen op materie en e. een effectieve simplificering of *black-boxing* van heterogene actoren. Bovendien wordt het netwerk gekarakteriseerd door een sterke convergentie van interesses van alle betrokken actoren, wat het mogelijk maakt voor *mezcal*-producenten om levensvatbare bedrijven te ontwikkelen.

De algemene conclusie van dit proefschrift luidt, dat de levensvatbaarheid van kleinschalige ondernemers-projecten een afgeleide is van de morfologie van de lokale en globale netwerken die deze projecten bouwen en in stand houden. Deze en enkele andere bevindingen uit de case-studies worden expliciet gemaakt in Hoofdstuk 10. Dit hoofdstuk komt ook terug op de vraag waarom het van belang is om naar de levensvatbaarheid van kleine bedrijven te kijken, en waarom de gekozen benadering van dit proefschrift gezien kan worden als een positieve bijdrage aan zowel het academische als aan het politieke debat over de rol van kleine bedrijven in rurale gebieden in ontwikkelingsregio's. Wat theorie betreft, laat deze studie zien dat men zich door middel van theoretisch-geïnformeerde empirische cases kan afwenden van disciplinaire bijziendheid, waardoor het mogelijk wordt grip te krijgen op de voornamelijk onzekere, ongefixeerde aard van ondernemers-projecten. Bovendien concludeert de studie dat traditionele sociologische en antropologische begrippen als 'structuur' hoognodig gereviseerd zouden moeten worden, want uit de beschreven cases blijkt dat kleine bedrijven niet ingebed zijn in een vaste structuur maar eigenlijk ideeën voorstellen die in meer of mindere mate geconcretiseerd worden door middel van praktijken, dat wil zeggen, door middel van een continue contextualisering en localisering. Deze studie laat zien dat het precair is om beleid te formuleren dat kleine bedrijven steunt door middel van alleen sociale, óf politieke, óf economische, óf technische maatregelen zonder naar de relaties van deze verschillende domeinen te kijken. Een hieruit voortvloeiende algemene beleidsaanbeveling is dat plannen ter promotie van kleine bedrijven verder moeten gaan dan de kleinschalige ondernemers-projecten te behandelen als geïsoleerde, afzonderlijke eenheden. In plaats daarvan zouden ze gericht moeten zijn op de materieel heterogene netwerken van actoren die betrokken zijn bij de productie, distributie en consumptie van goederen en diensten.

CURRICULUM VITAE

Gerard Verschoor was born in Vlaardingen, The Netherlands, on April 12, 1956. He spent a large part of his life in Mexico City, where he obtained his *preparatoria* degree in 1975.

From 1976 to 1982 he migrated to Germany, where he took up a study on automotive engineering. After extensive travelling in Asia, he moved to the Wageningen Agricultural University, where he obtained his MSc. degree in rural development sociology in 1989.

In 1991 he started his Ph.D. fieldwork on small-scale economic activities in the Autlán-El Grullo Valley in Western Mexico. He was supported in this by grants from NILI (*Nederlands Instituut voor Landbouwkundige Ingenieurs*) in 1991, and from the Wageningen Agricultural University and the Department of Rural Sociology from 1992 through 1996.

Since 1994 he has been lecturing at the Department of Rural Sociology of the Wageningen Agricultural University, where he is now a member of staff. Apart from rural small-scale enterprise, his present interests presently include ecological anthropology, the sociology of use and management of natural resources, and the sociology of agricultural science.

His research experience includes work on small-scale entrepreneurial projects (Western Mexico, 1991-1994); the interface between farmers, multinationals and the state concerning the use and management of natural resources (Atlantic Zone of Costa Rica, 1990); the multiple definitions of a *Man and Biosphere* Reserve (Taï National Forest, Côte d'Ivoire, 1989); local agricultural knowledge (Western Mexico, 1987); and transnational migration (Los Altos de Jalisco, Mexico, 1986).