Building Trust

Richard M. Locke Massachusetts Institute of Technology

DRAFT.

Introduction

In recent years, there has been an explosion of interest in trust and the various factors promoting it (i.e., social capital, associationalism, and the existence of certain key institutions). According to this literature, trust is important for economic prosperity (Fukuyama 1995), economic development (Humphrey and Schmitz 1996) and efficient organizational arrangements within and between firms (Miller 2001, Gibbons 2001). Trust and social capital are also seen as key ingredients underlying good government (Putnam 1993, various contributions in Braithwaite and Levi 1998), good schools (Coleman 1988, Schneider, Teske and Marschall 1997), the provison of quality health care (Cattell 2001) and even the resolution of ethnic conflicts (Varshney 2001). Given both the virtues associated with trust and its long recognized scarcity, a key question – for scholars and policy-makers alike – is whether or not trust can be created, and if so, how? This paper seeks to address this question.

The remainder of this paper is divided into four parts. First, I will review in highly stylized form the two basic approaches to the study of trust currently present in the literature. Second, I will advance my own argument on how trust can be built through a sequential process that combines private interests and public policies. Third, I illustrate this argument by analyzing two cases of trust-like behavior in two regions supposedly void of trust: Southern Italy and Northeast Brazil. The paper concludes by extrapolating from the case studies and pondering the more general lessons for building trust where it previously may not exist.

-

¹ This paper draws on a larger research project on trust and economic development in Southern Italy, Northeast Brazil and Eastern Germany.

Two Views of Trust

The literature on trust can be roughly divided into two very broad streams or perspectives, each associated with different conceptions of what trust is and assumptions of how (under what conditions) it becomes manifest.² The first stream of literature is of a more sociological nature. According to this school of thought, trust is the product of long-term, historical patterns of associationalism, civic engagement, and extra-familial interactions. Because of their distinct histories, some societies are simply more culturally disposed to associate than others. Where people are more inclined to get together, form clubs, organize soccer leagues, etc, this is where one also finds people more inclined to trust one another and to engage in collective action to solve common problems.

Work (1993), in which he seeks to explain differences in civic engagement and effective regional government between Italy's Center-North and the Italian Mezzogiorno or South through their very different stocks of social capital.³ According to Putnam, regional governments are more effective and efficient in the Center-North of Italy because they rely on the more developed civic traditions of citizens in these regions. In the South, regional governments falter because they are unable to build on similar historical

_

² For a fascinating and much more comprehensive discussion of the literature on trust, see Hardin 2001.
³ There have been numerous criticisms of Putnam's argument. See, for example, Sidney Tarrow, "Making Social Science Work Across Space and Time: A Critical reflection on Robert Putnam's Making Democracy Work," <u>American Political Science Review</u>, Vol. 90, N. 2 (June 1996): 389-398; and Margaret Levi, "Social and Unsocial Capital: A Review Essay of Robert Putnam's Making Democracy Work," <u>Politics and Society</u>, Vol. 24, N. 2 (March 1996). Interestingly enough, a 1995 study of associationalism in Southern Italy found that some regions of the South had as much associational density as the most civic regions in the Italian North. Alas, these regions are not characterized by good government or economic vitality. See Carlo Trigilia, ed., <u>Cultura E Sviluppo</u>, (Catanzaro: Meridiana Libri, 1995).

traditions of associationalism, reciprocity and trust.⁴ Francis Fukuyama (1995) builds on Putnam's work and argues that differences in economic performance across countries arise from differences in their cultural propensities to create trusting relations beyond their nuclear families. In societies where economic actors are capable of trusting and working with non-family members, they are capable of building larger, more bureaucratic and efficient organizations which, according to Fukuyama, are necessary to compete in modern, high tech, and fast-growing industries. This explains why some societies are characterized by smaller, more traditional and less efficient industrial structures and others possess larger, more capital and technology-intensive industries.⁵

The second strand in the trust literature is of a more economistic nature. Unlike the first group of scholars who focus primarily on sociological attributes or historical traditions, this second strand instead stresses long-term self-interest and the calculation of costs and benefits by utility-maximizing actors in promoting trust-like behavior.

According to the most basic formulation of this view, self-interested, utility-maximizing actors will find it worthwhile to cooperate with other, like-minded actors, when their interactions are repeated, when they possess complete information about the other players' past performances, and when there are small numbers of players (Axelrod 1984).

Robert Axelrod uses this framework to describe cooperative behavior among enemies in World War I (1984: chapter 4) and Eric Von Hippel (1987) employs this same approach

.

⁴ Personally, I see in Putnam's book a much more optimistic account of how trust and social capital are constructed, based on his chapters describing the evolution of and learning taking pace within the Italian regional governments. These chapters of Making Democracy Work nicely illustrate the more incremental and sequential process of building trust among political actors where it previously did not exist.

⁵ See also La Porta, Lopez-De-Silanes, Schleifer and Vishny, "Trust in Large Organizations", American Economic Review Proceedings, 1997 for a similar line of argument. For an alternative view of why different societies possess different industrial structures and on the relative competitiveness of large versus small firms, see Michael Piore and Charles Sabel, The Second Industrial Divide, (New York: Basic Books, 1984),

to explain why rival firms sometimes cooperate by sharing trade secrets and other competitive-enhancing information.

There have been numerous elaborations and modifications of Axelrod's original formulation (See North 1990 and Hardin 2001 for a discussion of some of these). Gibbons (2001) adds reputation effects to this basic framework when discussing how a repeated game framework can help account for the existence of "relational contracts" both within firms (between employees and managers) as well as between firms (producers and their suppliers) within the same industry. Avner Greif (1998) includes "self-enforcing political institutions" to the mix of factors influencing whether or not and under what conditions utility-maximizing actors will cooperate in his analysis of the evolution of Genoa's political institutions and patterns of economic growth in the twelfth century. Elinor Ostrom (1990) employs a similar approach when analyzing cases of successful cooperation among actors involved in the creation of common pool resource institutions and Douglas North (1990) emphasizes the key role institutions (both formal and informal) play in both mitigating the problems associated with the basic repeated game scenario and promoting the stability and predictability necessary for economic growth. Yet, regardless of these various modifications, the basic thrust of this entire line of work is that cooperation and trust-like behavior – far from being a cultural artifact – is a rational response by individual actors to the mix of opportunities and constraints present in their environment.

Both strands of the trust literature are important in elucidating the important role that various factors – self-interest, institutions and the organization of civil society -- play in promoting and/or sustaining trust. Clearly the existence of "encapsulated self-interest"

(Hardin 2001) is key to much of our behavior. Strong institutions ensuring the rule of law, contract enforcement and the protection of property rights (North 1990; Glaeser, Johnson and Schleifer 2001, Johnson, McMillan and Woodruff 2000) are without doubt important to a well-functioning economy. And the importance of a well articulated civil society, characterized by multiple and cross-cutting secondary associations and networks of information exchange and reciprocity to governance, both economic and political, is also intuitively convincing. However, both variants of the trust literature suffer from serious conceptual and empirical problems that limit their usefulness in understanding how trust can be created, especially in adverse conditions. Basically, the literature on trust suffers from three basic problems. First, its conception of the underlying factors sustaining trust is static. Second, its view of how trust is generated and sustained from a short-list of favorable conditions is mechanistic. Finally, and as a result of the first two problems, the literature on trust is overly pessimistic about the possibilities of creating trust in contexts where the favorable conditions and/or prerequisites supposedly underlying trust do not exist.

Much of the literature on trust is static because it assumes that patterns of associationalism and/or social capital – seen by some as the prerequisites of trust – are fixed in time and across space. In other words, because northern Italy was more civic than southern Italy in the twelfth century, it continues to be so today. But we know from numerous historical accounts that this is not the case. Societies with a previous history of civil and political conflict, underdevelopment, and exploitation have, over time and through the political construction of new coalitions and institutions, been able to develop trust-like behavior. This is precisely what happened in the "third Italy", the heartland of

civic engagement and social capital in Putnam's book, over the course of the 1950s and 1960s, and is currently taking place today in southern Italy. Thus patterns of associationalism and social capital are not etched in stone and forever immutable but rather are sometimes created, other times destroyed, through the political interaction of different groups in society.

Much of the trust literature is also overly mechanistic because it often treats the prerequisites of trust – be they institutional or sociological – as homogenous, binary variables. Societies, according to these accounts, either have the "right" institutions or they don't. They either possess a sufficient stock of social capital or not enough. But we know from our own experiences, as well as years of research, that this too is not so. Not all clubs and secondary associations are alike. It makes a real difference whether we are talking about Nazi youth groups or Rotary Clubs (Berman, 1997). As Suzanne Berger illustrated years ago in her research on French peasant organizations (1967), some clubs and associations aggregate people in ways that link them up with other groups and institutions in society whereas other organizations aggregate people so that they become isolated from other, diverse groups in society. Likewise, Granovetter (1973, 1982) has shown how the structure of linkages or ties among groups matters for the amount and quality of information exchanged among them. Thus, counting clubs and associations is not enough. We need to know something more about the qualitative features of these

_

⁶ See Carlo Trigilia, <u>Grandi Partiti e Piccole Imprese: Comunisti e democristiani nelle regioni a economia diffusa</u>, (Bologna: Il Mulino, 1986); Richard M. Locke, <u>Remaking the Italian Economy</u>, (Ithaca, N.Y.: Cornell University Press, 1995): chapter 4; Suzanne Berger and Richard Locke, "Il Caso Italiano and Globalization," <u>Daedalus</u>, Vol. 130, N. 3 (Summer 2001): 85-104; and Vittorio Capecchi, "The Informal Economy and the Development of Flexible Specialization in Emilia-Romagna." in Alejandro Portes, Manuel Castells, Lauren Benton, eds., *The Informal Economy*, (Baltimore: Johns Hopkins Press, 1989).

clubs, what is going on within them, how they aggregate their members, and what kinds of linkages they develop to other groups and institutions in society.

The same is true for the repeated games accounts of trust. Having a good reputation or the right institutional supports does not in and of itself induce rational individuals to cooperate, even when it is their self-interest to do so. History is filled with episodes of failure or destruction that could have been avoided had the relevant actors simply cooperated. Efforts to induce this cooperation through constitutional engineering and/or selective incentives have likewise frequently failed. Conversely, in other societies supposedly lacking these key institutions, trust-like behavior has long been manifest. Thus, there is nothing automatic or mechanical about having the "right" institutions and the existence of trust among economic actors.

Finally, both variants of the trust literature are overly pessimistic. What is the fate of all those places in the world that possess neither the appropriate laws/institutions nor the sociological prerequisites of trust? Are these places, which I assume are the majority in the world, doomed to a future of poverty, under-development, corruption and ineffective government?

This paper advances an alternative, more optimistic answer to this question. It argues that trust can be built, even in adverse situations, through a sequential process that mixes together self-interested action, government policy, and the development of self-governing mechanisms. But before elaborating on this argument, let me first specify the definition of trust employed in this paper.

Defining Trust

As Hardin (2001) nicely illustrates, there are numerous, often contradictory definitions and conceptions of trust. According to the Webster Dictionary, trust is the "firm belief in the honesty and reliability of another." (1984: 641) In other words, trust is a personal attribute. Some people are "trustworthy" and others are not. Diego Gambetta offers an alternative definition. According to him, "Trusting a person means believing that when offered the chance, he/she is not likely to behave in a way that damages us." (1988: 219) Trust, in this definition, is situational and/or relational, something that develops between two or more actors in a particular context or relationship. For the purposes of this paper, which focuses on trust and its impact on economic development, I build on Gambetta's definition and argue that economic actors manifest trust when, in situations of incomplete information and uncertainty (which I believe characterize most economic situations in the world), these actors nonetheless expose themselves to the risk of opportunistic behavior by others because they have reason to believe that these others will not take advantage of this opportunity.

The Argument in Brief: Trust Can Be Built

The argument of this paper is that trust can indeed be built, through a sequential process that blends together elements of "encapsulated self-interest" (Hardin 2001), government intervention, and the development of mechanisms for self-governance and monitoring by the actors themselves (Ostrom 1990, Greif 1997). As such, my argument on how trust can be built relies on and combines elements of the literature discussed

above. Like the repeated game theorists, I too believe that trust-like behavior as manifest in cooperative behavior among utility-maximizing actors begins with self-interest. As Hardin (2001) nicely argues, although some people cooperate and/or act in a trustworthy fashion out of affection or even moral commitment, the vast majority of us initially get together because we believe that it is in our own self-interest to do so.

Yet there are limits to this form of cooperation. Most of us will be inclined to cooperate only with people we know, or who are sufficiently like us, or even who have good reputations based on their prior records. In many real-world situations, however, complete information about other, potential partners is not available, nor is there certainty about the circumstances surrounding our interaction. Often our potential partners are numerous and may be not only different from us but also different from one another (heterogeneous). Moreover, sometimes, cooperation among small groups of like-minded actors can lead to cartels, which may benefit cartel members but damage the rest of us. Given that this paper is interested in trust and its beneficial consequences for economic development, I argue that a second step in the construction of trust is an active role for government policy.

Cohen and Rogers (1992, 1995) have argued that secondary associations with certain attributes (leadership accountability to group membership, inclusiveness of group membership, cooperative modes of interaction with other groups) are more likely to effectively aggregate and represent interests and thus facilitate efficient democratic governance than are other groups with qualitatively different features (hierarchical intragroup relations, parochial concerns, conflictual politics). They also suggest that government can use an array of selective incentives to artifactually shape groups and

associations along these lines. In his book on industrial development in Brazil, India and Korea, Peter Evans (1995) has illustrated the possibilities of "state-society synergy" resulting from a combination of state intervention and private cooperative efforts.

Building on both bodies of research, I argue that cooperative efforts initiated by self-interested actors are more likely to become more encompassing and responsive organizations that produce benefits not just for their own members but also for the broader community when government policy intervenes to reinforce this behavior. As the cases below will illustrate, government agencies are often able to accomplish this goal by trading the provision of a public or quasi-public good which directly benefits the cooperating group in exchange for the group's inclusiveness and responsiveness.

Yet external government intervention is insufficient in guaranteeing the continuing functioning of these cooperative endeavors. Although government policy may have been critical at an early stage of an association's development (helping to shape it into an encompassing, responsive and internally democratic organization), these same interventions may have also created problems for these collective efforts. As cooperative endeavors become transformed from relatively small and homogenous entities into larger and certainly more internally diverse and heterogeneous organizations, the possibilities for shirking, cheating, and other opportunistic behavior by individual members increases significantly. This opportunistic behavior threatens to undermine the whole cooperative effort. Building on the insights of Ostrom (1990) I agree that government does not have the know-how, let alone capacity to intervene and continually monitor the behavior of individual members. Instead, the associations themselves must develop their own self-governance mechanisms in order to ensure that their members behave in a cooperative.

trust-like manner. As a result, the third step in the trust-building process is the development of a set of internal self-governance and monitoring mechanisms that ensure the stability and longevity of these cooperative efforts.

I liken this process to a construction project in which each stage is important and necessary to the successful completion of the project. The self-interest of the actors themselves make up the basic foundation of all trust-like collective endeavors. This is what brings together the actors in the first place and what ties them together. Without this, our structure will rest on shaky ground, will not be firmly rooted in its reality. Government intervention ensures that our structure is built to code and thus able to exist within and not at the expense of its surroundings. Finally, the self-governance mechanisms provide the infrastructure that allows our structure to function and sustain itself well after the initial coat of paint fades. To illustrate this process of building trust, the next section analyzes two cases of trust-like behavior in two regions often portrayed as deserts of trust, lacking any of the prerequisites or favorable conditions underlying cooperation: Southern Italy and Northeast Brazil.

<u>Cooperating in Campania: Building Trust Among Mozarella di Bufala Producers in the</u> Italian South⁷

Since the founding of the Italian state 130 years ago, the single most important problem facing the country has been the so-called "Southern Problem". The Italian South,

_

⁷ This section is based on field research conducted in the Summer of 1998. Much of the data reported in this section was obtained from interviews with local producers and representatives of the Consorzio di Tutela di Mozzarella di Bufala Campana. I would like to thank Tito Bianchi, a graduate student in the Urban Studies and Planning Department, MIT, for his research assistance for this part of the project. Some of these findings were used by Bianchi in his own paper, "Development Discontinuities: Leaders and Intermediaries in Producers' Associations", unpublished paper, MIT, November 1999. I would also like to

or Mezzogiorno, with its 21 million inhabitants, has an average unemployment rate of about 22% (The national average is about 9%. In Central-North Italy it hovers around 5-6%.) and a 45% per capita income gap with the Center-North regions of Italy (Barca 2001). To remedy these problems, the Italian government established a special agency, the Cassa per il Mezzogiorno in 1950. Modeled on the US Tennessee Valley Authority, the Cassa sought to promote economic development in the Italian South. Between 1950 and 1992 (when the Cassa in its various incarnations was finally closed) billions of dollars were transferred from the central government in Rome to the South in order to develop the area's infrastructure, re-locate state-owned enterprises to the South, and provide various incentives for private northern Italian firms to establish new plants in the South. The results, however, were at best minimal (Trigilia 1992). Although differences in income, employment, and the quality of social services between the developed North and the Mezzogiorno appeared to be narrowing in the 1960s and 1970s, since the 1980s, the gap between the North and the South has once again widened. In fact, some have argued that the entire government effort at promoting economic development in the South through the Cassa not only failed but also exacerbated the Mezzogiorno's problems by creating greater opportunities for corruption and clientalism (Trigilia 1992).

As a result of its long history of economic backwardness and the various social problems associated with it, the Italian South has been portrayed -- by Italian and foreign scholars alike -- as the paradigmatic case of a low trust society. Edward Banfield (1958) argued that the Mezzogiorno's problems were due to the unwillingness, perhaps even inability of Southern Italians to cooperate, to engage in collective action, which in turn,

thank Professor Achille Flora from the University of Naples II, Capua Campus, for sharing with me his knowledge of the industry.

was the product of their "amoral familist" ethic. Robert Putnam (1993) has portrayed the Italian South as deficient in social capital and thus plagued by poor government and low quality social services.

Yet out of this desert of trust, this land of corruption, clientalism, criminality, and backwardness, some extremely interesting cases of trust-like behavior have emerged.

And out of these cooperative endeavors, significant economic development is taking place. One of these cases is the Consorzio di Tutela di Mozzarella di Bufala Campana (henceforth Consorzio) located in the southern region of Campania.

Located just an hour's drive south of Rome, Italy's capital, Campania is one of the eight regions that make up the under-developed Mezzogiorno. With a population of about 5.8 million people, Campania is home to some of Italy's finest tourist destinations: Pompeii, Capri, Naples and the Amalfi Coast. It is also an area famous for its organized crime syndicates, as well as rampant corruption and clientalism (Chubb 1982). With an official unemployment rate of 25.8% and a per capital GDP that is only 51% of levels in the Center-North (SVIMEZ 1999), Campania has long been portrayed as one of the most troublesome regions of the Italian Republic.

The Consorzio is located in Caserta, in the heart of this region. Around the Consorzio, a vibrant cluster of buffalo mozzarella cheese producers has emerged. About 200 producers (of different sizes), employing approximately 20,000 people and producing about \$500 million in annual retail sales, have developed in an area that was

-

⁸ For more on these developments, see Richard Locke, <u>Building Trust in a Rent-Seeking World</u>, ms. in progress. Just to be clear, I am not arguing that economic development in the South of Italy (or anywhere else for that matter) is only associated with trust-like behavior. Other forms of economic development based on very different forms of social interaction have also emerged in the South. These are discussed in my manuscript. For other perspectives on recent developments in the Italian South, see Barca 2001, Baculo 1996, and Viesti 2000.

previously underdeveloped and inhabitable (the area had many malaria-infested swamps). The story of this transformation illustrates how even in the most adverse circumstances, trust can be built and can produce significant benefits for the local economy.

The production of buffalo mozzarella has a long history in the Italian South and especially in the area around Caserta. Buffalo were traditionally raised on swampy lands around Naples, where other cattle could not survive the disease-ridden and poor quality local pastures. Buffalo mozzarella was sold primarily in local markets, in and around Naples, and was seen as a more affordable source of protein for a population that often could not afford meat. Beginning in the 1960s, however, the number of buffalo and hence the production of mozzarella cheese, grew dramatically. Between 1960 and 1970 and again between 1970 and 1980 the number of buffalo doubled in this area. Buffalo milk and hence mozzarella cheese production grew accordingly. (See Table 1). As the production of buffalo mozzarella cheese grew, producers began to sell it beyond their traditional markets to various cities in the Center-North of Italy (e.g., Rome, Milan) as well as to other European cities. Because of its distinct taste, demand for this product was high and because of its limited supply, producers could charge a significant premium for this product. Profit margins are about 25% in this sector. Yet these high margins also generated problems for the local industry since they attracted the attention of large, agroindustrial conglomerates from northern Italy (e.g., Parmalat, Locatelli) who sought to

-

⁹ This is an interesting and in many ways typical southern Italian story. Because the swampy lands around Naples were seen as precarious for public health, the Cassa financed a project aimed at reclaiming these lands, which would then be used as pastures for more productive cattle. Since the buffalo symbolized backwardness to the Italian policy-makers of the time, they wanted to replace them with various northern European breed of cattle. However, after the lands had been improved, local farmers maintained their buffalo on them. This not only led to an increase in number of buffalo but also to an increase in milk production (with better pastures, more could be fed and each could produce more milk). This increased supply of milk production led to the increased production of mozzarella cheese, which in turn, led to the expasion of the market for this product outside of its traditional, local markets.

enter the sector, and also encouraged some local producers to increase their production by adulterating their product (by mixing in less expensive and readily available cow's milk). This, in turn, threatened to undermine the quality and distinctiveness of the entire local industry.

To tackle these problems, four large local producers (involved in both the raising of buffalo and the production of cheese) came together in 1981 to form the Consorzio. Today, the Consorzio has about 100 members (50% of total producers) of different sizes. Over the last twenty years, the Consorzio has been key in the development of the industry: promoting technological innovation in the raising of buffalo and the production of cheese, establishing clear procedures and standards for the production of buffalo mozzarella cheese, lobbying the government to obtain a regional trade mark (DOC) for the local industry, organizing collective marketing and sales initiatives, and developing a set of monitoring mechanisms aimed at guaranteeing product quality.

The first achievement of the Consorzio was a 1986 law that resulted from its lobbying of Parliament. The law mandated that all producers of buffalo mozzarella cheese individually wrap each piece of cheese in a paper indicating the name of the producer. Prior to this, mozzarella was sold in anonymous wrappers, thus making it impossible to monitor the individual producers. Now that each piece of cheese was linked to a specific producer, efforts to combat the adulteration of the product became viable. In 1989, the Consorzio applied for a Denominazione di Origine Controllata (DOC) from the Italian government. This DOC, similar to what many wines possess, is essentially a trade mark identifying the product's geographic area and thus preventing outside firms from using this same label when selling their (often similar) products. In 1993, the DOC was

granted and the Consorzio was given the right to enforce the correct use of the DOC, perform necessary controls, and to sue those who used this label illegally. In 1996, a similar recognition was granted to the Consorzio by the European Commission. Buffalo mozzarella is the only southern cheese in Italy to obtain a DOC, all the others (e.g., Gorgonzola, Parmigiano Reggiano) are all located in the North. Obtaining this DOC was a major achievement for the Consorzio and local industry since it mitigated the external threat posed by large conglomerates from the North (creating a de facto barrier to entry) while at the same time giving the Consorzio the legal standing to discipline individual producers whose quantity-enhancing production techniques could injure the reputation of the local industry as a whole.

Membership in the Consorzio increased dramatically after it obtained the DOC: from 15 members in the late 1980s to over 100 in the mid-1990s. In fact, the Italian government insisted that in return for its grant of the DOC, any producer of buffalo mozzarella in the Campania region must be allowed to join the Consorzio. Membership is voluntary and dues vary depending upon the level of involvement in the Consorzio (voting members pay more than simple users of the trade mark) and size of the producers. Consorzio members must follow very specific production procedures aimed at guaranteeing the quality of their product. The Consorzio has sought to capitalize on quality-control procedures associated with the DOC by launching a multi-million dollar marketing and sales campaign aimed at familiarizing potential customers with the trade mark and convincing them that only Consorzio-affiliated producers can be trusted to produce "genuine" buffalo mozzarella.

Notwithstanding the existence of the Consorzio and its control over the DOC, the scarcity of buffalo milk and the economic incentives to adulterate the product are still present. Industry analysts have estimated that adding a little cow milk (which is one-third the cost of buffalo milk) to the recipe could reduce production costs significantly while barely altering the taste of the cheese (II Latte 1993). Thus, individual firms could join the Consorzio, use its DOC label, and then adulterate their product to increase revenues – with all but the most refined palates realizing the difference. Yet, should customers discover that the product they are paying a premium for is <u>not</u> the real thing, they will refuse to pay this premium. And given that the product is identified by most customers by its geographical origins, all local producers (free-riders and cooperators alike) will suffer accordingly.

This scenario actually took place in the early 1990s. Between 1987 and 1993, consumer groups conducted three independent investigations of buffalo mozzarella cheese produced by various local companies. The tests found that between 33% and 60% of the samples analyzed were in fact adulterated (La Pira 1991: 100; Il Latte 1993: 160). These results threatened to undermine the entire local industry as customers (both local and not) began to discount the price of the product. To reverse this situation, the Consorzio established its own monitoring and inspection team that periodically conducts surprise visits of individual members to test the chemical composition of their product. Members caught adulterating are fined \$6000 the first time they are caught cheating, double this the second time, and expulsion from the Consorzio should they be caught adulterating their product a third time. As a result of this monitoring process and the sanctions associated with it, the numbers of adulterated samples among member firms

has decreased significantly – from 23% in 1993 (before the Consorzio acquired the DOC) to 7% in 1997. (See Table 2.)

Aside from ensuring that quality standards are respected by local producers, the Consorzio has also worked with the agricultural extension service of the University of Naples to develop ways of increasing the supply of available buffalo milk, and thus increasing the production of its members. Naturally, buffalo give birth (and hence produce milk) in the Winter (when demand for mozzarella is low). Thus, in the Summer, when demand is high, buffalo milk is especially scarce and hence expensive. To remedy this problem, the Consorzio worked with the agricultural extension service to introduce new techniques like mechanical milking among local buffalo herders (mechanical milking is much more productive) and ways of staggering the births of new buffalo throughout the year. Both of these techniques (now employed by the vast majority of local farmers) have led to an increase in the productivity and output of local producers. Thus, rather than simply threaten local producers into complying with quality standards, the Consorzio sought to help them increase their production (and hence sales and profits) in a variety of different ways. The Consorzio has also encouraged local producers to experiment with pasteurization techniques, aimed at extending the life of the product and hence, making its export to distant markets more feasible. Today, Consorzio-affiliated buffalo mozzarella can be found in shops in the United States, Japan and Latin America. Finally, the Consorzio continues to promote collective marketing and sales efforts in Italy and abroad. A visit to the area quickly reveals clearly the success of these various strategies. Throughout the Caserta region, one finds many extremely modern and profitable cheese producers, all proud of and clearly benefiting from their affiliation with

¹⁰ Interview with Mr. Vincenzo Olivero, Director of the Consorzio, July 27, 1998.

the Consorzio. Analyzing how this trust-like behavior developed and sustained itself in Campania, a region famous for its lack of civic engagement, social capital and cooperative behavior, is key to our understanding of how trust can be built even in the most adverse circumstances. But before embarking upon this analysis, let's turn to a second and equally impressive case of trust-building in Northeast Brazil.

Marketing Mangoes in Petrolina-Juazeiro: Trust-Building in the Brazilian Northeast¹¹

The nine states that make up Brazil's Northeast have a long history of poverty, drought, underdevelopment and corruption. With a population of 45 million people and an area of about the size of France, Germany and Spain combined, the Brazilian Northeast is home to about 1/3 of the Brazilian population. One-third of the population lives in absolute poverty and those lucky enough to possess a job in the formal economy earn about \$100 a month, the legal minimum wage. Like many chronically underdeveloped regions in the world, the nine Northeast states are legendary for their clientalistic practices and poor public services. Illiteracy, infant mortality, income inequality and child prostitution are rampant in this region. In 1999, 53 out of every 1000 children under the age of one died in the Northeast, only 32% of Northeast households possessed potable water and sewage, and 27% of the adult population was illiterate. In

_

¹¹ This section relies on field research conducted in Northeast Brazil between 1997 and 2000. This project, funded by the Bank of the Northeast, was directed by my colleague, Professor Judith Tendler (Urban Studies and Planning, MIT) and myself. Researched entailed hundreds of interviews and field visits throughout the northeast region. And an analysis of economic development projects in the shoe, garment, textile, export fruit, and metalworking sectors. Eight MIT graduate students participated in this study. The section on Valexport and Petrolina-Juazeiro draws heavily on the PhD dissertation written by one of these students, Octavio Damiani, based on the field research done for this project.

¹² For an interesting description of the Northeast, see Judith Tendler, <u>Good Government in the Tropics</u>, (Baltimore, Johns Hopins University Press, 1997).

¹³ IBGE, Social Indicators, and Atlas do Desenvolvimento Humano no Brasil,

1996, over one-third of the active labor force worked over 40 hours per week and earned less than the legal minimum wage. 14

Yet here too, numerous instances of trust-like behavior and economic development have emerged in recent years. ¹⁵ One of the most fascinating of these cases is the producers' association Valexport, located in Petrolina-Juazeiro. ¹⁶ Petrolina-Juazeiro (henceforth PJ) is an area of about 53,000 square kilometers, with a population of just over 500,000, bordering the states of Bahia and Pernambuco, along the Sao Francisco River basin. In the 1960s, the PJ region was no different from most other rural areas in Northeast Brazil. Its population was poor and its economy backward – based primarily on sharecropping and the production of cattle, cotton, and subsistence crops (mostly beans and corn). By the mid-1990s, however, PJ had become a vibrant area of thriving farms cultivating a wide range of high value-added crops for export markets in Europe and the United States. By the late 1990s, 90% of Brazil's mango exports and 30% of its exported table grapes came from this region.

Over 200 mid-sized agricultural firms employing about 40,000 wage workers are involved in the growing and exporting of various high value-added crops. ¹⁷ Workers in this area earn about 22% above the legal minimum wage and, in contrast to most rural workers in the Northeast, are registered (formal) workers and thus receive fringe benefits (social security and medical insurance) as well. Two-thirds of PJ workers are trained in a

_

¹⁴ IPEA, Brasil em Perspectiva, 1998.

¹⁵ These other cases are discussed in Richard Locke, <u>Building Trust in a Rent-Seeking World</u>, ms. in progress.

¹⁶ For more on this organization and on the development of Petrolina-Juazeiro, see Octavio Damiani, "Beyong Market Failures: Irrigation, the State, and Non-Traditional Agriculture in the Northeast of Brazil," Ph.D. Dissertation, Department of Urban Studies and Planning, MIT, February 1999.

¹⁷ In addition, there are slightly over 2000 small family farms, settlements given to landless peasants, in this area as well. Interestingly enough, large private agricultural firms and small family farms collaborate on a number of projects in the PJ area.

variety of skills, including managing irrigation equipment, packing fruit, and pruning trees. These workers receive bonuses for these skills. Most workers are organized by the rural workers' union. Interestingly enough, relations between employers and workers in PJ are good and firms of different sizes collaborate with one another in promoting a variety of collective endeavors.

The evolution of this region provides a fascinating case study of how numerous, heterogeneous social actors, at times with conflicting interests, came together and built new institutions that led to the up-grading of the local economy. Damiani (1999) nicely documents the important role particular government agencies played in promoting this transformation in PJ. Essentially, a number of government agencies, but one in particular – CODEVASF, the federal agency created to promote economic development in the Sao Francisco River basin – employed a series of non-traditional policies to develop the area. Not only did CODEVASF promote the electrification and irrigation of much the region but also it settled the area with a diverse group of farmers.

Unlike in many land reform/land reclamation projects, where land is usually given to local landless peasants, CODEVASF decided to recruit and settle both landless peasants and well-established mid-sized agricultural firms from the South of Brazil (the country's traditional agricultural heartland). CODEVASF actively recruited these private firms and encouraged them not only to settle in PJ but also to cooperate and share information with the newly settled peasants. CODEVASF also created a competitive bidding system for the allocation of individual pieces of land and granted land titles and water rights to producers who demonstrated their commitment to the area's development. Similar to what Amsden (1988) has described for Korea's industrialization process,

CODEVASF carefully monitored the performance of individual producers and disciplined them (by revoking their titles and shutting off their water) should they fail to implement the development plans they had submitted during the bidding process.

But much of the area's development is also the result of the producers' own efforts, especially through their local association: Valexport. Valexport took the lead in coordinating efforts among local producers to upgrade and diversify their production, eradicate fruit flies, establish and ensure quality standards, and facilitate exports to foreign markets. Created in the 1986, partially as a response to a crisis among local melon producers, Valexport has been instrumental in promoting collective efforts among producers in the region. Prior to the founding of Valexport, no single association or authority aggregating the various local producers existed. As a result, little to no collective action took place. The results proved disastrous for many local producers.

The crisis suffered by melon producers in PJ was in many ways a product of their past success. In the early 1980s, PJ emerged as a leading pole of melon production in Brazil and the number one exporter of Brazilian melons. Over 10% of the region's irrigate land was dedicated to melon production. Because of PJ's favorable climate, high sugar content melons could be grown year-round. In the early 1980s, it appeared as if the demand for PJ melons was unlimited. However much they produced, local farmers could sell to European wholesalers.

Yet, as in the case of the buffalo mozzarella producers, good times also created incentives for some local producers to engage in questionable practices. As greater numbers of farmers began growing melon and new firms entered the export business, growing practices and quality control became compromised. Unlike the original

producers of melon who had years of experience growing and exporting this product in the South, many of the new entrants had little previous experience with this crop. These new melon growers planted many different types of melons and were uneven in their use of fertilizers and pesticides. Consequently, the quality of local melon production varied tremendously. Melons of different type, size, and taste were increasingly being cultivated by local growers. Some of these new growers and exporters eschewed quality control practices and thus shipped rotting or tasteless melons to Europe. Yet because melons, like buffalo mozzarella in its early years, were identified by their region or origin (no single grower had a sufficiently well known brand name), these shoddy shipments hurt the reputation of all local growers. In fact, as shipments of mixed quality melons continued to arrive from PJ, fruit wholesales in Rotterdam began to reduce the prices they were willing to pay for these fruits. By 1996, prices had fallen to levels that did not even cover the exporting costs of the melons. This resulted in a collapse of the market for PJ melons and a wave of bankruptcies among local melon producers.

Because of this previous experience, PJ producers decided that cooperation was essential to any future efforts at exporting their products. At the same time, several larger growers began to cultivate table grapes and mangoes with an eye to exporting these fruit to the US and Europe. In order to avoid past mistakes, four of the area's largest producers formed Valexport. Within a few months, 43 additional members joined the association. Today, over 200 local growers of different size are members of Valexport. Although the initial mission of Valexport focused on collecting information about foreign markets, lobbying federal agencies for assistance with exports, and developing an area-wide quality control program, over time, the association became active in coordinating pest-

control efforts, organizing collective marketing and sales initiatives, and promoting both the up-grading and diversification of the region's crops.

Illustrative of Valexport's important role in the local industry are its various initiatives aimed at eradicating fruit flies in the PJ region. In order for foreign fruit producers to export to the United States, they must receive approval from the US department of Agriculture (USDA). For this to happen, the USDA must certify the area as "fruit-fly-free", which entails the implementation of a highly detailed and costly permanent pest control program in the exporting region. In addition, the USDA inists that foreign mango producers carry out a post-harvest "hot water treatment" which entails the dunking of each piece of fruit in hot water (116 degrees F) for up to 90 minutes. Finally, US inspectors (one for each exporting firm) must personally witness the post-harvest treatment and packing of the fruit and certify that all requirements have been met by exporting foreign firms.

Needless to say, this process is extremely time-consuming and costly. The equipment for the hot water treatment alone costs \$150,000 and approved packing and storage facilities usually cost over \$500,000. In addition, each exportting firm must pay the salary and other related expenses for the USDA inspector while he/she is inspecting the harvest. Most important, however, pest control must be a universal practice among local growers. No matter how hard most farmers work at eliminating fruit flies on their land, if one of their neighbors shirks in his/her efforts, everyone in the region will suffer. And given the high costs involved in the pest-control process, it is easy to imagine how some cash-strapped farmers might be inclined to cut costs and compromise standards wherever possible.

In order to assist local producers in their efforts to eliminate fruit flies in the PJ region, Valexport organized a series of educational meetings about the pest-control process for local growers. It also lobbied various government agencies to help it implement the fruit-fly eradication program, primarily by getting them to share equipment and personnel costs associated with this program. This, in turn, allowed Valexport to provide these services to its members. Thus, although most local growers could not afford to cover the costs of the fruit-fly eradication process by themselves, by providing these services collectively, Valexport was able to extend the pest-control effort to all relevant farmers. These collective efforts paid off. By 1997, 14 local producers were already exporting mangoes to the US.

In addition to its coordinating role in the fruit-fly eradication program, Valexport was able to re-launch exports from the region, primarily by hiring experts to advise local growers and subsidizing attendance by local growers (or their representatives) at trade fairs abroad. It also played a central role in developing the local table grape industry and in organizing the national table grape growers' association. Valexport even developed a single brand to market Brazilian table grapes.

Throughout this process, the Brazilian government, through CODEVASF, provided significant support to Valexport. CODEVASF not only provided the association with its initial office space and paid the salary of Valexport's staff in its first years but also helped write the association's statute. And, as described above, CODEVASF shared the costs of the area's expensive fruit-fly eradication program by providing Valexport with some of its equipment and lending the association some of its agronomists to work with local growers in meeting USDA standards and procedures. In return for its

assistance, CODEVASF insisted that Valexport welcome all local producers who wished to join the association, regardless of their size. In fact, out of its total membership of 201, 134 members are small farmers (ex-landless peasants) and 67 are large, more developed private agricultural firms. Ina region often characterized by its poorly developed civil society and lack of associationalism, the success of Valexport is impressive.

Beyond Cheese and Fruit: Concluding Reflections on Building Trust

This paper has argued that trust can be created, even in contexts void of the supposed prerequisites and /or preconditions underlying it. It has sought to illustrate this argument through two case vignettes of collective action among producers in Southern Italy and Northeast Brazil. Although both cases presented in this paper centered on the food/agricultural industry, my other research includes similar cases of cooperation among producers in the shoe, garment, jewelry and machine tool industries. In short, the outcomes observed are in no may particular to or derivative of the two sectors described above.

What all these cases share is the process through which trust was built among them. Although the initial challenges facing fruit exporters in Petrolina-Juazeiro and mozzarella manufacturers in Campania were different, the underlying thrust of their problems was the same: failure to cooperate would undermine the competitiveness, perhaps even the viability of the local industry. As a result, the producers came together in defense of their **own self-interest.** And in both cases, the initiative was taken by a small group of large producers, precisely those who had most to lose should the situation

not be corrected. In Caserta, four large producers involved in both buffalo herding (milk production) and cheese manufacturer came together to found the Consorzio in order to defend themselves from the dual threat of large, outside firms entering the local industry and of local firms adulterating the product. In Petrolina-Juazeiro, again four of the largest growers came together to establish Valexport in order to avoid past mistakes that led to the decimation of the local melon industry.

Yet, in both cases, these producers' associations quickly became more encompassing and hence representative organizations. As a result of **government** pressure, both the Consorzio and Valexport opened its doors to all local producers involved in the same sectors. As a result, both associations soon aggregated a diverse mix of members, of different sizes and at times with different interests. Essentially government agencies entered into an exchange with these producers' associations. In return for the provision of a public or quasi-public good -- the granting of the DOC in the case of the buffalo mozzarella cheese producers in Southern Italy, and extensive financial and technical support in the fruit-fly eradication program in the case of Petrolina-Juazeiro -- the government insisted that these associations open their doors and become truly representative bodies. In many ways, this makes sense since given that democratic governments are not supposed to support a few select societal actors but rather all of their citizens. However, there are numerous examples of precisely this kind of selective support for industry actors by governments throughout the world (see Evans 1995). Thus, I am not arguing that government everywhere and always acts in ways that encourages associations to become more representative and encompassing, only that

public policy **can** play a positive role in building trust by precisely engaging in these types of exchange.

Finally, both cases illustrated the importance of **self-governance mechanisms** in supporting and maintaining the cooperative efforts of the local producers. Careful monitoring efforts by Valexport was essential to the success of the fruit-fly eradication program. Without these efforts as well as the association's provision of collective services to all members, pest control in the PJ region would not have been possible. Periodic testing and sanctioning of members were also essential to the ability of the Consorzio to reduce the adulterating practices among its members. Had these practices continued, the distinctiveness and hence source of competitiveness of the entire industry would have surely eroded. In short, all three elements – self-interest, government policy, and self-governance institutions were essential to the construction of trust among producers in Campania and Petrolina-Juazeiro.

If trust can be built in the Italian Mezzogiorno and the Brazilian Northeast, two regions often portrayed as deserts of trust, lacking most if not all of the supposed sociological and institutional preconditions underlying this resource, then surely, there is hope for other actors in other regions of the world. My hope is that this paper will help us look beyond our own preconceived notions of the very limited circumstances under which trust can exist and begin to imagine how trust-like behavior can be promoted in a wide array of socio-economic and political circumstances.

<u>Table 1</u>
Evolution of the Buffalo Mozzarella Sector (rough estimates)

Year	Number of Buffalos	Production of Buffalo Milk (millions of kg)	Production of Mozzarella (millions of kg)
1960	27,000	-	
1970	55,000	-	
1980	103,000	65.5	
1990	143,000	102	8.2
1993	151,000		24.2
1996	170,000	150	35.40

Source: Consorzio Mozzarella di Bufala Compana DOC

<u>Table 2</u>
Monitoring and its Consequences for Consorzio Members

Year	Number of Samples Analyzed	% of Positive (adulterated) Results	Explusions from Consorzio
1993		23%	
1994	165	15%	
1995	194	10%	2
1996	214	11%	6
1997	199	7%	2

Source: Consorzio Mozzarella di Bufala Compana DOC

Bibliography

- Amsden, Alice. 1989. *Asia's Next Giant: South Korea and Late Industrialization*. Oxford: Oxford University Press.
- Axelrod, Robert. 1984. The Evolution of Cooperation. New York: Basic Books.
- Baculo, Liliana. 1997. "Segni di industrializzazione leggera nel Mezzogiorno." *Stato e Mercato*, December: 377-418.
- Banfield, Edward. 1958. The Moral Basis of a Backward Society. New York: Free Press.
- Barca, Fabrizio. 2001. "New Trends and the Policy Shift in the Italian Mezzogiorno." *Daedalus*, Spring: 93-113.
- Bates, Robert, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal and Barry Weingast. 1998. *Analytic Narratives*. Princeton: Princeton University Press.
- Berger, Suzanne. 1972. *Peasants against Politics: Rural Organization in Brittany 1911-1967*. Cambridge: Harvard University Press.
- ——— and Richard Locke. 2001. "Il Caso Italiano and Globalization." *Daedalus*, Summer: 85-104.
- Berman, Sheri. 1997. "Civil Society and the Collapse of the Weimar Republic." *World Politics*, April: 401-29.
- Bianchi, Tito. 1999. "Development Discontinuities: Leaders and Intermediaries in Producer's Associations." Unpublished.
- Braithewaite, Valerie and Margaret Levi, eds. 1998. *Trust and Governance*. New York: Russell Sage Foundation.
- Brandi, Antonio. 1994. "The Role of the Consortium for the Protection of Cheese 'Mozzarella di Bufala Campana'." Presented at the International Symposium on Buffalo Products, Salerno, Italy: December 1-4.
- Capecchi, Vittiro. 1989. "The Informal Economy and the Development of Flexible Specialization in Emilia-Romagna." In Alejandro Portes, Manuel Castells, Lauren Benton, eds., *The Informal Economy*, Baltimore: Johns Hopkins Press.
- Cattell, Vicky. 2001. "Poor People, Poor Places, and Poor Health: The Mediating Role of Social Networks and Social Capital." *Social Science and Medicine* 52: 1501-16.

- Chubb, Judith. 1982. *Patronage, Power, and Poverty in Southern Italy: A Tale of Two Cities*. Cambridge: Cambridge University Press.
- Cohen, Joshua and Joel Rogers. 1992. "Secondary Associations and Democratic Governance." *Politics and Society*, December: 393-472.
- ——. 1995. Associations and Democracy. New York: Verso.
- Coleman, James. 1998. "Social Capital in the Creation of Human Capital." *American Journal of Sociology* 94: S95-S120.
- Cook, Karen, ed. 2001. Trust in Society. New York: Russell Sage Foundation.
- Damiani, Octavio. 1999. Beyond Market Failures: Irrigation, the State, and Non-traditional Agriculture in Northeast Brazil. Doctoral Dissertation, MIT.
- Evans, Peter. 1995. *Embedded Autonomy: States and Industrial Transformation*. Princeton: Princeton University Press.
- Fukuyama, Francis. 1995. *Trust: The Social Virtues and the Creation of Prosperity*. New York: Free Press.
- Gambetta, Diego. 1998. *Trust: Making and Breaking Cooperative Relations*. Oxford: Blackwell.
- Gibbons, Robert. 2001. "Trust in Social Structures: Hobbes and Coase Meet Repeated Games." In Karen Cook, ed., *Trust in Society*. New York: Russell Sage Foundation.
- Glaeser, Edward, Simon Johnson, and Andrei Shleifer. 2001. "Coase Versus the Coasians." *The Quarterly Journal of Economics*, 116: 853-99.
- Granovetter, Mark. 1973. "The Strength of Weak Ties." *American Journal of Sociology*, 78: 1360-80.
- ——. 1982. "The Strength of Weak Ties: A Network Theory Revisited." In Peter Marsden and Lan Lin, eds., *Social Structures and Network Analysis*. Newbury Park, CA: Sage Publications.
- Greif, Avner. 1998. "Self-Enforcing Political System and Economic Growth: Late Medieval Genoa." In Robert Bates, Avner Greif, Margaret Levi, Jean-Laurent Rosenthal and Barry Weingast, eds., *Analytic Narratives*. Princeton: Princeton University Press.
- Hardin, Russell. 2001. "Conceptions and Explanations of Trust." In Karen Cook, ed., *Trust in Society*. New York: Russell Sage Foundation.

- Humphrey, John and Hubert Schmitz. 1996. *Trust and Economic Development, Discussion Paper 355*. Brighton, UK: Institute of Development Studies.
- Johnson, Simon, John McMillan, and Christopher Woodruff. 2000. "Courts and Relational Contracts." Unpublished.
- LaPira, Roberto. 1991. "Ecotest: Mozzarella di Bufala." La Nuova Ecologia, August.
- La Porta, Rafael, Florencio Lopez-De-Silanes, Andrei Shleifer, and Robert Vishny. 1997. "Trust in Large Organizations." In *AEA Papers and Proceedings*, May: 333-338.
- Il Latte. 1993."Attualita: Largo alla Bufala!"
- Levi, Margaret. "Social and Unsocial Capital: A Review Essay of Robert Putnam's *Making Democracy Work.*" *Politics & Society*, March: 45-55.
- Locke, Richard. 1995. Remaking the Italian Economy. Ithaca: Cornell University Press.
- Miller, Gary. 2001. "Why Is Trust Necessary Organizations? The Moral Hazard of Profit Maximization." In Karen Cook, ed., *Trust in Society*. New York: Russell Sage Foundation.
- North, Douglass. 1990. *Institutions, Institutional Change and Economic Performance*. Cambridge: Cambridge University Press.
- Ostrom, Elinor. 1990. Governing the Commons. Cambridge: Cambridge University Press.
- Piore, Michael and Charles Sabel. 1984. *The Second Industrial Divide*. New York: Basic Books.
- Putnam, Robert. 1993. *Making Democracy Work: Civic Traditions in Modern Italy*. Princeton: Princeton University Press.
- Schneider, Mark, Paul Teske, Melissa Marschall, Michael Mintrom, and Christine Roch. 1997. "Institutional Arrangements and the Creation of Social Capital: The Effects of Public School Choice." *American Political Science Review*, March: 82-93.
- SVIMEZ. 1999. Rapporto 1998 Sull'Economia dell Mezzogiorno. Bologna: Il Mulino.
- Tarrow, Sidney. 1996. "Making Social Science Work Across Space and Time: A Critical Reflection on Robert Putnam's *Making Democracy Work*." *American Political Science Review*, June: 389-97.
- Tendler, Judith. 1997. *Good Government in the Tropics*. Baltimore: Johns Hopkins University Press.

Trigilia, Carlo, ed. 1995. *Cultura e Sviluppo*. Rome: Meridiana Libri.

———. 1986. *Grandi Partiti e Piccole Imprese*. Bologna: Il Mulino.

——. 1992. Suiluppo Senza Autonomia. Bologna: Il Mulino.

Varshney, Ashutosh. 2001. "Ethnic Conflict and Civil Society." *World Politics*, April: 362-98.

Viesti, Gianfranco, ed. 2000. Mezzogiorno dei Distretti. Rome: Meridiana Libri.

von Hippel, Eric. 1987. "Cooperation Between Rivals: Informal Know-How Trading." *Research Policy* 16, no. 6, December: 291-302.