

Trust, Institutions, and Institutional Change: Industrial Districts and the Social Capital Hypothesis

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Much current work in the social sciences seeks to understand the effects of trust and social capital on economic and political outcomes. However, the sources of trust remain unclear. In this article, the authors articulate a basic theory of the relationship between institutions and trust. The authors apply this theory to industrial districts, geographically concentrated areas of small firm production, which involve extensive cooperation in the production process. Changes in power relations affect patterns of production; the authors suggest that they also have knock-on consequences for trust and cooperation among actors.

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What are the sources of trust, and what is their relationship to trust's political and economic effects? That there is a positive relationship between trust and social capital on one hand and political and economic success on the other has been the primary conclusion of a large body of research in the social sciences in the past decade. Beginning with the renewed interest engendered by Robert

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Putnam's *Making Democracy Work* and continuing to the present, researchers have attempted to document the various ways in which trust and social capital can improve the performance of political and economic systems.¹

But much of this research has suffered from the weaknesses for which Putnam's original effort has been criticized.² One line of criticism has centered on the excessive or problematic use of macrolevel data, while another has focused on the weak specification of the relevant causal relationships. And it is easy to see that these two criticisms are related: survey data alone is inadequate to specify the causal connections that must underlie Putnam's theories, which link two macrolevel phenomena, the political and economic success of large social collectivities and generalized trust and cooperation, through microlevel phenomena such as networks, associations, and the effects of institutions on beliefs and decision making.³

Putnam puts the case for social capital as follows:

Voluntary cooperation is easier in a community that has inherited a substantial stock of social capital, in the form of norms of reciprocity and networks of civic engagement. Social capital here refers to features of social organizations, such as trust, norms and networks that can improve the efficiency of society by facilitating coordinated action.⁴

In this passage Putnam combines several factors that are relevant to this analysis: social capital, trust, norms, and cooperation. Putnam highlights two primary sources of social capital: "Social trust in complex modern settings can arise from two related sources—norms of reciprocity and networks of civic engagement."⁵

On the effects of norms, Putnam offers a standard functional account: "Norms such as those that undergird social trust evolve because they lower transaction costs and facilitate cooperation."⁶ As with most functionalist explanations, he redefines the effect but does not elaborate a mechanism that would actually explain it. On the effects of the networks of civic engagement, Putnam emphasizes the positive effects of generalized reciprocity. He lists four reasons why the generalized reciprocity characteristic of these networks enhances cooperation: (1) it increases the costs of defection, (2) it fosters robust norms of reciprocity, (3) it facilitates communication and improve information flows, and (4) it embodies past success at collaboration and provides a blueprint for future cooperation.⁷

In a related way, from an explicit rational choice perspective, Coleman conceives of trust as a factor in certain types of social interactions characterized by risk: "They are situations in which the risk one takes depends on the performance of the other actor."⁸ Here the problem that trust helps to resolve is the problem of social cooperation, a situation of interdependent action for mutual benefit. The difficulty that arises from the time lapse between actions is basically the same as the difficulty faced by two actors who have to make simultaneous, but unobserved, choice. Coleman equates mutual trust with social capital and defines it in

the functional terms of the reduction of transaction costs in these risky social interactions.⁹

The functionalist logic characteristic of Putnam's social capital and Coleman's rational choice accounts underspecifies the causal mechanisms at the core of the relationship between trust and social cooperation. Both of them confuse the *origins* of trust with its consequences. Without greater specification, these accounts produce the following explanatory logic: mutually beneficial cooperation explains mutually beneficial cooperation. As formulated, these accounts seem at worst trivial or at best significantly incomplete.

What is needed is a more fully developed account of trust, which would distinguish between its origins and its presumed benefits for political and economic performance.¹⁰ A more adequate and persuasive account would, at a minimum, do three things. First, it would establish microlevel explanations that identify the causal relationships among trust, social capital, institutions, and social cooperation. Second, it would present a dynamic account of the ways in which trust and social capital can emerge and be maintained over time. Third, it would provide a way to assess the conditions under which this dynamic process is more or less likely to occur.

One body of theory that we think could usefully contribute to this more fully developed account is institutional theory. In the past two decades there has been a revolution, much of which uses ideas from transaction cost economics¹¹ and noncooperative game theory,¹² in the analysis of the sources of institutional development and change. Knight notes that this type of institutional analysis would seem to be especially well suited to the kinds of questions asked by students of trust and social capital.¹³ This view is reinforced by Levi and Hardin, among others, who have argued that trust may be sustained by appropriate institutions.¹⁴

The underlying intuition is as follows. If institutions may exert an independent effect on trustworthiness, and thus on how social actors trust or distrust each other, then it follows that the *evolution* of institutions may be expected to have an impact on trustworthiness, and thus on trust, and thus on cooperation among individuals. And as institutions change, trust between individuals is also likely to change, perhaps in predictable ways. This further suggests that we might learn something about the conditions under which trust and social capital will emerge and be maintained in a society by studying the ways in which social institutions evolve in the same society.

An institutional account of trust would thus have important advantages over current arguments about social capital. It would have clear and explicit microfoundations, with a more rigorous specification of causal relations. And it would offer a theoretical lens through which the relationship between individual action and social outcomes could be examined. In this article, we build on our previous work and set out, in a preliminary way, just such an account of the relationship between institutions, trust, and cooperation between individuals.¹⁵ Our the-

ory is applied to evidence drawn from industrial districts in central and northeastern Italy, and in particular from the packaging machinery manufacturing district of Bologna. These districts, in which small firms cooperate extensively with each other, provide an important test case for arguments about social capital and its effects. For Putnam, their existence is evidence of the “macro” link between civics and economics, at the “microlevel.”¹⁶ He argues,

What is crucial about these small-firm industrial districts, conclude most observers, is mutual trust, social cooperation, and a well-developed sense of civic community—in short, the hallmarks of the civic community. It is no surprise to learn that these highly productive, small-scale industrial districts are concentrated in those very regions of north-central Italy that we have highlighted as centers of civic traditions, of the contemporary civic community, and of high-performance regional government.¹⁷

Industrial districts are very nearly the only example that Putnam provides of social capital in action at the microlevel. They thus constitute a unique test case for Putnam’s hypothesis that “social capital” is one of, and perhaps the single most important, root causes of economic and social success. More specifically, they provide a setting in which the causal factors underlying cooperation can be observed more closely. Is the broader category of “social capital,” as defined by Putnam, necessary to understand the root causes of cooperation? Or is the narrower framework of institutional analysis, which specifies causal relationships between variables more clearly, sufficient to the task?

In this article, we begin by setting out a simple model of how institutions may affect trust and trustworthiness. We then go on to examine cooperation in industrial districts, canvassing evidence that indicates that informal institutions do indeed play a highly important role in creating the necessary conditions for trust, trustworthiness, and cooperation. Next, we show that there is evidence to suggest that change in industrial districts, contrary to the arguments of many scholars, involves struggles over power and distributional benefits. Changing power relations would also seem to be linked to changes in cooperative relationships between firms. We conclude by emphasizing that (1) this evidence provides support for a model of institutional change in industrial districts that sees power relations as a key causal variable, (2) there is evidence of a significant relationship between particular institutional arrangements and levels of trust and trustworthiness in an area, and (3) trust relations will thus materially be affected by changes in the relative power of actors or by changes in the desires of actors powerful enough to ensure that their interests prevail.

SECTION 1: INSTITUTIONS AND TRUST—THEORETICAL BEGINNINGS

The claim that institutions have an important effect on trust is frequently made in literature. It is apparent that institutions have substantial consequences for trust

in many areas of social life, and perhaps are especially important in economic relations. As Hardin argues, the fact that existing institutions militate against certain kinds of opportunism—which perhaps are extremely damaging—may remove one major source of insecurity in such relationships and allow us to trust and cooperate with each other more easily in other matters.¹⁸ There seems to be some empirical evidence for this claim in the economic realm, where studies indicate that a strong and enforceable body of contract law, as exists in Germany, is linked to more diffuse forms of cooperation between actors.¹⁹

For the purposes of this article, we wish simply to define trust as a set of expectations held by one party that another party or parties will behave in an appropriate manner with regard to a specific issue. To specify this relationship between trust and social institutions, we employ the “encapsulated interest” account of trust.²⁰ On this account, trust is predicated on trustworthiness, or more accurately on perceived trustworthiness, in a three-part relationship. X trusts Y with regard to matter Z, because X believes that it is in Y’s interest to behave in a trustworthy fashion with regard to matter Z. X trusts Y to the extent that she believes that Y’s interest encapsulates her own with regard to the matter in question. For Hardin, this is as far as the trust relationship generally goes: personal relationships among people for whom it is in their own self-interest, given the context of the relationship, to be trustworthy.

But other proponents of the concept of trust as an explanatory factor have broadened the definition. Two extensions are relevant to our analysis. The first takes the form, “X trusts people of type Y in all situations.” This formulation captures the type of generalized trust that seems to be at the core of Putnam’s account. On this account the burden of explicating the relevant causal mechanisms is a substantial one. At the very least, it would require some account of a dynamic process in which social actors extend the trust that they experience with others in their personal interactions to a generalized trust of those with whom they have had no prior personal experience.²¹

This is to be distinguished from an alternative extension of the form “X trusts Y in Z-like situations,” which forms the basis of our discussion of the effects of institutions on trust and trustworthiness. On the account that we set out next, the existence of institutions in common social settings can affect the trustworthiness of the actors in those situations in such a way as to create ongoing relationships of trust among those actors. This account occupies a middle ground somewhere between Hardin’s narrow formulation of personal relationships and Putnam’s broad conception of generalized trust.

Under certain circumstances, institutions, which we take to be sets of rules, may have quite a wide-reaching effect; many forms of apparently diffused trust do rely in the end on actors’ interests, which may be substantially affected by institutions. We suggest a simple model of the relationship between institutions and trust, which posits that institutions affect trust between actors insofar as they (1)

give actors an incentive to behave in a trustworthy (or, in some circumstances, untrustworthy) manner and/or (2) affect social beliefs about the trustworthiness or untrustworthiness of actors through their dissemination of information about the expected behavior of others.

Consider these possible mechanisms in turn. First, institutions directly affect the incentives for action. In doing so, they can foster trustworthiness. Note the following very simple example: if I am aware that there exists an institution such that I will be severely punished if I cheat in a certain sort of transaction, and if the expected costs of punishment outweigh the expected benefits of cheating, my optimal strategy will be to remain honest. Thus, in many situations, I can be considered to be trustworthy with regard to this transaction: others who know of the existence of this institutional rule, and of my subjection to it, have good reason to trust me.

Many institutions, both formal and informal, create such incentives. In this way institutions, through incentives and sanctions, may serve as the anchor for quite complex trust relationships. But, it is unlikely that institutions will entirely remove the risk of malfeasance, and in contexts in which they do, trust may not be an appropriate analytical concept: trust as an explanatory category only applies in social situations in which there is a real risk of the trusted party defaulting. Given the confusion in the literature about the causal effects of trust, it is important to emphasize this point. If social cooperation can be explained merely in terms of compliance with the dictates of institutional rules then there is no need to invoke trust as part of the explanation. Invoking the role of institutions is all that is needed. Trust and trustworthiness become relevant explanatory concepts when the social cooperation to be explained cannot be reduced to simple institutional compliance.

And this leads to the second mechanism for institutional effect on trust: dissemination of information about the expected actions of others. Social institutions instantiate commonly held beliefs about the behavior of others.²² By knowing the content of institutional rules, social actors can establish stable expectations about how others are going to act in common social situations. When the content of the rules dictate cooperative behavior, social actors can use this information to develop expectations about the likelihood that others will cooperate and then make a decision to act accordingly. In this way, social institutions generalize social expectations.

Moreover, this fact about the information effects of social institutions on social beliefs provides a way of making sense of the idea that we may begin to cooperate under the shadow of institutions and end by trusting each other in ways that cannot be reduced to the direct effects of institution-induced expectations. To see this, we need to consider how institutions might contribute to a dynamic process of learning about the trustworthiness of others. To do so we need to be careful to maintain an important distinction between the cooperation inherent in institutional compli-

ance and the cooperation that we want to explain through the use of the concepts of trust and trustworthiness.

By maintaining this distinction we can support the following plausible account of the relationship among institutions, trust, and social cooperation: cooperation through compliance with institutional rules, in particular social settings, affects an actor's beliefs about the propensity of others to cooperate (their level of trustworthiness) in similar settings, which affects that actor's willingness to cooperate at some subsequent point in time in that same social setting. Such a process would involve three basic stages. First, actor X observes actor Y's compliance with the basic institutional rules governing situation Z. Second, from this information, actor X draws the inference that actor Y is trustworthy, that she is likely to cooperate in future instances of Z. Third, because of his developed belief about the trustworthiness of actor Y in situation Z, actor X is more willing to cooperate with actor Y in situation Z, whether or not the situation is governed by institutional rules.²³

If the above set of arguments hold merit, they further imply that institutional change in a given social setting, insofar as it affects the interests of actors in behaving in a trustworthy or untrustworthy fashion or affects the circulation of information about the trustworthiness or untrustworthiness of actors, will have important effects on trust between actors in that setting. Thus, institutional change ought to have consequences for trust, independent of other factors. Explanations of institutional change remain a highly contested topic. Many rational choice models offer a more or less functionalist account of institutional evolution, arguing that it is driven by efficiency considerations, a stance that has led to much criticism both from within and without the approach.²⁴ Yet, as Miller argues, "The most fundamental results in rational choice have given us good and sufficient reasons for *expecting dysfunctional results from individual rational choices*,"²⁵ suggesting that institutions will by no means necessarily be efficient insofar as actors are rational and face fundamental social dilemmas in the construction of institutions.

This is as true of the informal institutions that are most clearly implicated in social capital arguments as of those more formal institutions that arise from structured bargaining between actors. Knight suggests that informal institutions, rather than tending toward efficiency in any general sense, are the contingent by-products of power struggles between actors, except under quite special circumstances. In later work,²⁶ he specifies more clearly the conditions under which a power-based bargaining theory is most likely to explain institutional emergence and change, and the conditions under which other approaches—an evolutionary approach to the emergence of conventions, or selection through competition—are likely to provide a better account. While the bargaining approach emphasizes distributional gains for particular actors, both the evolutionary and contract approaches stress improved social efficiency.

Using a simple two-person mixed motive coordination game, Knight suggests that the evolutionary approach (which relies on theories of salience) is likely to work best when parties are more or less indifferent between “beneficial” equilibrium outcomes. Contract accounts of institutional emergence are likely to provide a good explanation when neither of the actors is more powerful than the other. Bargaining accounts will have explanatory weight when neither of these conditions holds; in other words, when different equilibrium outcomes have different distributional consequences and when actors’ bargaining power—their ability to achieve outcomes that favor their specific distributional interests—varies. Power here is a function of the breakdown values, the pay-offs to each player when cooperation is not achieved. Some actors will be more adversely affected by breakdown than others and as a consequence will be more eager to achieve coordination, even if they have to settle for a smaller piece of the overall pie. In contrast, other “more powerful” actors will be less seriously affected by a failure to achieve coordination and will be able to use their relative indifference as leverage to secure distributional benefits. These breakdown values are a function of the alternatives available to actors in the case of noncoordination; actors who have a wide variety of alternatives in the case of breakdown can use this fact to press for more distributionally advantageous coordination solutions.

Knight’s more recent work therefore not only provides a theory of how institutions may derive from bargaining between actors but also provides a “metatheory” of the circumstances under which a bargaining approach is better able to explain outcomes than other approaches, and vice versa. For example, actors may find themselves in an initial situation where each of them faces more or less the same alternatives, and thus the same breakdown values; there will be relatively few asymmetries of power, and whatever institutions arise from voluntary contracting between these individuals may reflect the desire for efficiency gains.²⁷ However, if external circumstances change so that some actors acquire new alternatives in case of breakdown, whereas other actors face the same set of alternatives as they had previously (or a more constricted set), then asymmetries of power may emerge, and a bargaining theory of institutional evolution will begin to provide a better explanation than a contracting or efficiency one.²⁸

Thus, one may begin to see how trust, power, and institutions relate to one another. One may make more specific predictions on the basis of this general framework. For example, take an initial situation where actors’ bargaining power is roughly symmetrical. If external circumstances change so that one set of actors becomes more powerful with respect to others, then, *ceteris paribus*, one may expect that they will claim a greater share of the benefits of cooperation. They will be able to do this because they have more options in the face of breakdown; they may credibly threaten withdrawal to win new concessions. This will have clear implications for trust relations between these actors and others.²⁹ It will likely be associated with an increase in hierarchy; “the asymmetric and incompletely

defined authority of one actor to direct the activities of another within certain bounds.”³⁰ The newly privileged actors will now have greater ability to demand concessions from others, without themselves making concessions in return, thus increasing their hierarchical authority. In the previous situation of symmetric bargaining power, they may have had to share certain benefits with other actors to ensure cooperative outcomes. They will now be able to reduce or even withdraw those benefits without fear of retaliation by others by credibly threatening to leave the relationship unless other actors accept the new dispensation. Others may previously have been able to trust these actors to reciprocate cooperation in return for cooperation. Such trust may no longer be possible, as the more powerful actors no longer have good reason to behave in a trustworthy fashion toward their hierarchical inferiors. They may make demands without necessarily giving much in return; their authority over other actors will increase.

Over time, these changes in social relationships will give rise to new, more concrete social expectations about the likely outcomes of interactions between different sets of actors. Specific experiences across a variety of bargaining situations will thus give rise to general beliefs, which will in turn be instantiated in new sets of informal institutions. Previously existing institutions, which reflected previous social beliefs about the likelihood of actors reciprocating cooperation with cooperation, will come to be replaced by different rules that reflect the new dispensation of power relations.

Thus, in summation, one can provide a somewhat stylized but arguably useful model of the relationship between social institutions and trust. Institutions are likely to affect trust insofar as they provide information about the possible actions of others to an actor in a strategic setting. If I know that an institution exists such as to punish untrustworthy behavior, I may be inclined to behave in a trustworthy fashion, and others who know of this institution will likely trust me with regard to the matter in question. Alternatively, an institution may provide information about the compliance behavior of other actors in institutional settings, which allows me to be better informed as to the trustworthiness of potential cooperative partners.

Institutional change will likely occur as a result of changes in the power relationships between actors or in the outcomes desired by actors who are powerful enough to prevail in bargaining with weaker ones. Such institutional changes may have implications for trust between actors, insofar as they affect the willingness of actors to behave in a trustworthy fashion or the availability of information about the trustworthiness (or lack of same) of actors. In turn, changes in trustworthiness and in trust between actors are likely to lead to changes in the extent and form of cooperation between actors. Thus, the model we set out clearly specifies a set of causal relationships that may plausibly affect trust and cooperation between actors (see Figure 1).

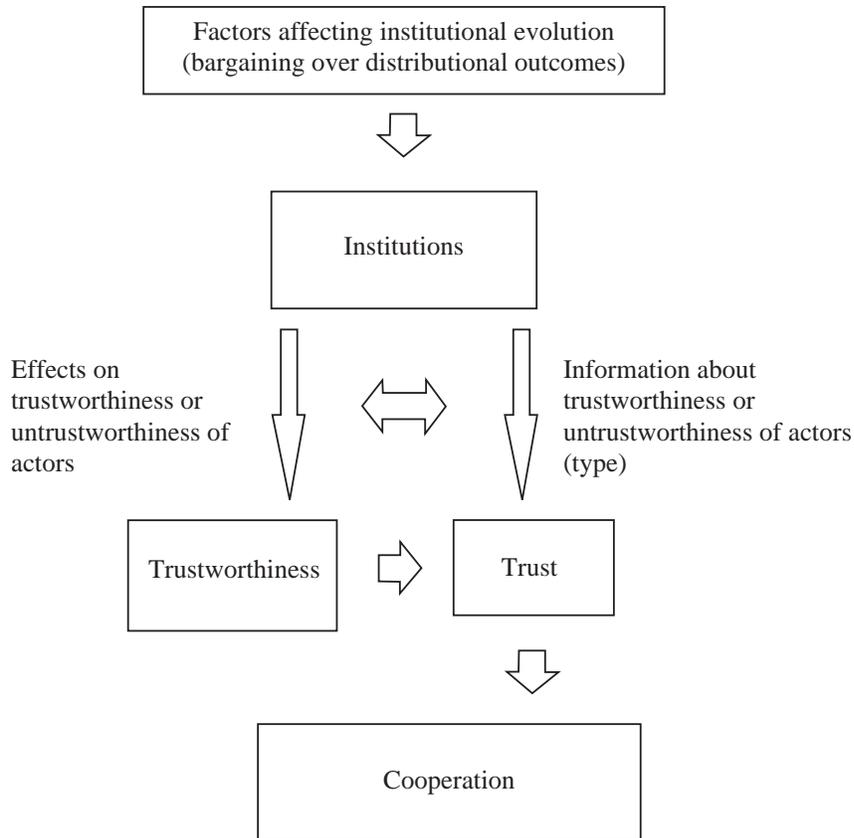


Figure 1. Factors affecting institutional evolution (bargaining over distributional outcomes).

In particular, one may see how institutional change may be associated with changes in how the fruits of cooperation are distributed. Institutions instantiate social beliefs about relations between sets of actors. When, from an initial situation of equality, external circumstances increase the bargaining power of one set of actors with respect to others, *ceteris paribus*, institutions will change too, reflecting the ability of these actors to claim a greater share of the overall benefits of cooperation. These new—or changed—institutions will involve increased hierarchy, in that those actors that have gained power will be better able to demand concessions from others without providing concessions in turn.

SECTION 2: TRUST AND COOPERATION IN INDUSTRIAL DISTRICTS

Over the past twenty-five years, a body of work, primarily in the fields of economic sociology and economic geography, has examined “industrial districts.”

These are geographical zones characterized by small firms specializing in a particular area of production. They have been highly economically successful. As such, they provide an important counterexample to traditional views of economic development, which tend to proclaim either the efficiency-promoting virtues of the competitive market, in which firms interact on a relatively anonymous basis (or more precisely, their identity is irrelevant to transactions), or of the internal hierarchy of firms or other organizations (where authoritative decisions are supposedly made by hierarchical superiors). These small firm districts are neither. While firms interact continuously with each other, the strict conditions of impersonal competitive markets do not even begin to apply. Nor is there any single overarching authority. Yet, such local economies are often capable of equaling, and sometimes of outdoing, those varieties of organization that are more familiar to political economists. The basis for their success appears to be diffuse patterns of cooperation. Unlike the standard vertically integrated firm, where all stages of the production process are hierarchically organized within a single organization, particular phases of the production process are put out to specialized firms who cooperate with each other in making the product. In the ideal-typical industrial district, production is organized by “final firms,” which engage with customers on the final market, take orders, and draw up plans or specifications. They then subcontract out the actual process of production to a host of smaller subcontractors, each of whom may specialize in only one phase of production, and then assemble the finished product and bring it to market. Such a radical decentralization of production is highly unusual in advanced Western economies.³¹ Yet, it has become relatively widespread in certain parts of Italy and has arguably been the source of Italy’s economic success in many sectors over the past three decades. Furthermore, this pattern of production is found in quite different sectors of production; not only more “traditional” sectors such as textiles, clothing, footwear, and jewelry but also more advanced ones such as mechanical engineering and medical equipment. There has been a strong geographical bias; these districts tend to be found in the center and the northeast of the country, the so-called Third Italy (*terza Italia*).³²

Very clearly, the form of production seen in these industrial districts requires a high degree of cooperation between firms. Formal contracts are relatively rare; instead, subcontracting relations depend on word-of-mouth agreements. Final firms may need to respond quickly to shifts of fashion in the footwear and clothing industries or to modify specifications on the fly for customers in the capital machinery sector. Yet, this also poses a puzzle, as there is substantial potential for opportunistic behavior in such relations, even more than in standard contractual relationships between firms. On the face of it, subcontractors could hold final firms to ransom, using the threat of “holdup” to renegotiate informal agreements in their favor. This is perhaps the main reason why the “new institutional economics” of Williamson and his colleagues emphasizes vertical integration as a solu-

tion to problems of potential opportunism.³³ In their view, it usually makes sense for a firm that is highly dependent on one or more of its suppliers to buy these suppliers and integrate them rather than run the risk of blackmail. Yet, Italian industrial districts have traditionally involved an extremely high decentralization of production, which appears to have worked quite well; indeed, it has helped Italian firms become more competitive than their rivals in many fields of production. It is clear that decentralization of this sort is inconceivable without cooperation, in the sense that subcontractors do not take advantage of the final firms.³⁴

Not only may subcontractors behave opportunistically toward final firms in this form of organization but final firms may behave opportunistically toward their subcontractors. The production of bespoke machinery requires a very high degree of flexibility from subcontractors, both in terms of their willingness to accept changes in specifications and their willingness to work long hours and weekends at short notice to complete a commission. In the short term, this may involve substantial costs for a subcontractor, costs outweighing the price that a subcontractor receives for a particular order. While these costs may be compensated for by future orders in a long-term relationship, there is no necessary reason why a final firm should not pocket the gains it makes from a subcontractor's flexibility, without making any long-term commitments. After all, it is under no contractual obligation not to do so.

The evidence suggests that these risks of opportunism on both sides have been overcome without resort to contract, in contrast to other economic contexts, where such extensive cooperation on the basis of diffuse relationships is relatively rare. It seems plausible at first glance that this lack of opportunism in cooperative relations is the result of trust (or more precisely trustworthiness) of some kind between subcontractors and final firms. Indeed, scholars working on industrial districts have come to a broad consensus that trust between economic actors plays a crucial role in the economic success of industrial districts.³⁵ With a few important exceptions however,³⁶ authors have tended to identify this trust as being specifically nonrational in origin. It is typically attributed to preexisting history and shared social identity or to the creation of new forms of common identity rather than to interests. Much of this hostility to rational choice accounts of trust and cooperation in industrial districts is founded on the (correct) perception that standard neoclassical economics has little to offer to their study. But more recent work in noncooperative game theory has clear relevance, as exemplified by the work of Michael Taylor and others on community;³⁷ Bengt Holmström and John Roberts, and Gary Miller on cooperation between and within firms;³⁸ and Avner Greif and others on cooperation and informal enforcement.³⁹ Most pertinently, perhaps, there is extensive evidence that cooperation in these industrial districts is strongly linked to institutions of a sort that are amenable to rational choice analysis, in the form of informal rules that govern the behavior of actors. Marco Bellandi, for

example, discusses the importance of “local rules which restrict the most harmful forms of rivalry” within these districts.⁴⁰ More explicitly, Sebastiano Brusco speaks of how in industrial districts

swindles and frauds are particularly rare and this also helps to reduce overall transaction costs. . . . This rather special climate is a result of the fact that, alongside state regulations, there is a second set of rules that derives from the community to which all the companies belong. This set of rules, shared by everyone and to which everyone has to adapt, originates in civil society, and also carries a series of sanctions: whoever breaks the rules of the game is excluded from the community and can no longer work with it.⁴¹

Compare this with Knight’s definition of a social institution.

Social institutions are sets of rules that structure social interactions in particular ways. These rules (1) provide information about how people are expected to act in particular situations, (2) can be recognized by those who are members of the relevant group as the rules to which others conform in these situations, and (3) structure the strategic choices of actors in such a way as to produce equilibrium outcomes.⁴²

It should be immediately apparent that Brusco’s community rules satisfy Knight’s definition and are furthermore accompanied by sanctions sufficient to secure the cooperation of actors.

Further evidence of the existence of community rules in industrial districts may be found in research findings from the packaging machinery district of Bologna.⁴³ As Brusco would have predicted, there was evidence of a widespread set of informal understandings governing business practice in relationships between firms. These understandings underpinned economic relations between final firms and subcontractors, which those subcontractors described in terms of personal relationships and reciprocal trust. Yet, these relationships and this trust relied in the final analysis on the presence of informal institutions, which existed to punish defaulters.⁴⁴ These rules stipulated honesty in personal dealings between business actors. While there was relatively little reliance on formal contracts in subcontracting relationships, informal rules and sanctions existed so that dishonest behavior of many sorts was unprofitable. This was most clearly described by one firm owner, when asked why opportunism was not rife given that firms never took each other to court (he had previously stated that legal action was almost unheard of). In his words, a firm that does not cooperate,

comes to be excluded from the system. Slowly, one does not have credibility any more, which allows one to remain in the system. The world of packaging is very small—even if it is big it is very small. It is thus that it is, there are many personal relations that serve also sometimes to avoid situations which . . . do not have to be solved through legal means. He who doesn’t keep to this rule—these aren’t written rules—well there you are! *{beh!}*⁴⁵

A set of understandings had arisen on the basis of these rules, whereby subcontractors remained honest, and undertook to provide flexibility, in return for the guarantee of work in the long term.⁴⁶

Furthermore, the kinds of expectations that individuals had of each other are just those that our argument would predict. On one hand, trust was clearly reliant on the existence of informal institutions, local community rules that mandated honesty in certain kinds of transactions, and the punishment of cheaters. On the other hand, this trust could not be reduced to simple institution-induced expectations. Instead, these informal institutions provided an initial basis on which actors constructed quite complex relationships of trust and cooperation.

Thus, in summation, there is evidence to suggest that trust and cooperation in Italian industrial districts relies on the presence of informal community institutions. Furthermore, recent rational choice work on the theory of institutions appears to offer a good framework in which both our own work on Italian industrial districts and the work of others can be situated.⁴⁷

SECTION 3: INSTITUTIONAL EVOLUTION AND CHANGES IN TRUST AND COOPERATION

The evidence discussed previously, even though it strongly indicates that there is an important relationship between informal institutions and trustworthiness, trust and cooperation in Italian industrial districts, only tells half the story. In this section of the article, we wish to discuss whether there is evidence not only that institutions affect trust but also that institutional change might be an important causal factor in the explanation of changes in cooperation, and (by implication) trust and trustworthiness. To evaluate this, we return to the discussion in section 2, where we suggested that distributional battles between actors and asymmetries of power might be important causal factors in explaining institutional change.

Interest-based theories of institutional change have traditionally received short shrift in the study of industrial districts. While a recent wave of literature has studied change in industrial districts, it has typically either treated this change as collective adaptation to new exigencies,⁴⁸ or a rationalization process after Tönnies or Weber in which *Gemeinschaft* is replaced by *Gesellschaft*.⁴⁹ The implication would seem to be that change is a consequence either of mutually agreed adaptation or of ineluctable social processes. Yet, there is evidence that change and stability in industrial districts may often be attributed to strategic interaction among self-interested actors. One may take, for example, change in the famous knitwear district of Carpi.⁵⁰ Like many districts in Emilia-Romagna, Carpi has a local branch of the regional development corporation, ERVET, which seeks to introduce new technologies; one of its projects, a design system called Citera, has received considerable attention in the policy literature as an example of successful collective adaptation to changing market conditions.⁵¹ In fact, even though Citera should have been uncontroversial—it introduced efficiencies for one group of

actors (final firms) without materially harming others—its introduction to Carpi caused major political battles. In the words of an academic observer who was then on the board of the relevant local development body, this was

because this project . . . was changing the power relations within the district. It was giving . . . more effective tools to those who were controlling the designing process, and making the role of the standard manufacturers, of the *terzisti* [subcontractors] less relevant, . . . [they had] lower ability to constrain the other ones.⁵²

The system was only successfully introduced after the *terzisti* had been bought off with initiatives that shored up their own position. These struggles took place in the context of a single, although very important, project within one industrial district. Yet, there is evidence of change on a wider scale. Recent research findings suggest that industrial districts in Italy are seeing a general shift in their mode of internal organization.⁵³ In particular, larger firms, or consortia of large firms, appear to be enjoying an ever-more dominant role in many, perhaps most, districts. Knight's theory would suggest that the growing dominance of large firms will lead over the medium term to institutional change tilting distributional outcomes in favor of these firms. And indeed there is some evidence to suggest that such a change is occurring in at least one industrial district, the packaging machinery district in Bologna that we have mentioned in the previous section.

Bologna, the capital of Emilia-Romagna, is at the heart of Italy's packaging machinery industry; firms in Emilia-Romagna, which are concentrated in the Bologna area, account for some 70 percent of total Italian employment in the sector. The cluster is relatively recent in origins; before World War II there were only two local companies in the sector.⁵⁴ After the war, production expanded rapidly: these two firms, and a third which had entered after the war, gave birth to a host of newer firms, as technicians left to start up their own businesses. The industry saw continued expansion during the 1950s and 1960s. The *autunno caldo* of industrial unrest at the end of the 1960s was responsible for a major shift in production in the industry, as final firms began to outsource more of their work to subcontractors. This outsourcing resulted in an enormous expansion in the number of smaller firms in the industry during the 1970s (see Figure 2). These subcontractors were typically artisanal producers with only a few employees; most of them remain quite small, although a few now have fifty or more technicians working for them.

As in other Italian industrial districts, most final firms outsource the majority of production to smaller subcontractors. A final firm will receive an order for a machine; it will then draw up plans and delegate the production of each individual component to a subcontractor; other subcontractors may assemble components into mechanisms or process them further in other ways and then return them to the final firm, which will assemble the machine. It should be noted that the stage of assembly is more strategically important than it sounds, and that final firms usually (although not always) keep control of it. Furthermore, a couple of the very

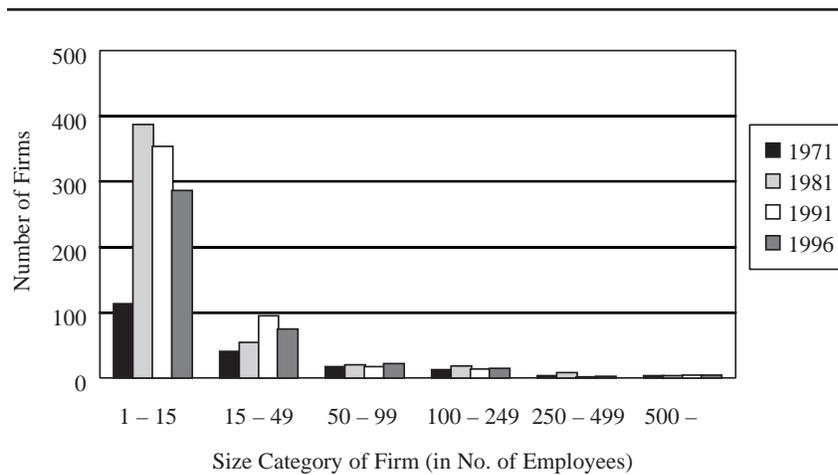


Figure 2. Number of firms in mechanical engineering in the province of Bologna.
 Source: Compiled from ISTAT Industrial Census data: 1971, 1981, 1991, 1996.

largest firms in the district retain a substantial amount of in-house production, although they too use subcontractors to provide flexibility; one large firm in the district outsourced some 70 percent of the production process during a period of rapid expansion in the 1990s. These provisos stated that the degree of delegation in the production process is extraordinary and runs counter to many of the tenets of Williamsonian transaction cost economics.

However, there is evidence to suggest that this form of production is changing, as bargaining conditions between firms changes due to conditions in external markets. As Knight suggests, one useful way to conceptualize bargaining power is to look at the breakdown values, and in particular at the alternatives that parties in a bargaining situation might have if agreement is not reached. If both sides have a wide variety of attractive alternatives open to them, then there is unlikely to be substantial disparities in bargaining weight: neither will be in a position of vulnerability. Thus, the range of possible alternatives offers a rough index of power relations.

As we have already mentioned, the Bologna packaging machinery cluster had its beginning in the late 1940s, in a situation of rapidly expanding markets. Entry costs were very low, allowing individual technicians to set up their own firms with a high probability of success. A second, quite different, wave of small firm creation began in the early 1970s. Here, the impetus was the introduction of restrictive labor practices, which encouraged firms to put work out rather than handling it internally through hiring new workers. This encouraged the creation of small subcontracting firms, some of which later went on to become final producers in their own right.

Evidence suggests that horizontal relationships of cooperation between peer firms and vertical subcontracting relationships between final firms and their subcontractors were relatively egalitarian until the recent past. This was predicated on a rough equality of power between firms, which in turn rested on two foundations. The first was the nature of the external market. Rapidly rising demand for packaging machines in a wide variety of markets meant that it was impossible for any single firm or group of firms to dominate: when firms felt that they were coming under too much pressure from a competitor in their current market segment, they could relatively easily refit themselves for new ones. The second condition depended on the first; it was the relative proliferation of small firms producing for final markets. This allowed for a rough equality between subcontractors and their buyer firms: subcontractors had the choice of dealing with a wide variety of buyer firms, and buyer firms had the choice of a considerable variety of subcontractors. In short, the conditions were similar to those that Knight identifies as underlying the efficiency achieving contract model of institutional evolution. All actors in the packaging machine cluster had a considerable range of alternatives open to them, which precluded substantial asymmetries in power from emerging. Thus, the institutions that emerged did not markedly privilege one set of actors over another: both subcontractors and final firms shared in the benefits of an expanding market.

There is good evidence that this situation is changing. As in other industrial districts, large “group” firms are emerging as an important, and perhaps dominant, form of organization. These groups seek to provide integrated ranges of machines within a particular sector, and sometimes in more than one sector.⁵⁵ This process was originally driven by a search for economies of scale;⁵⁶ it appears now to be more driven by demand markets; large integrated customer firms prefer to deal with a single integrated supplier rather than with a variety of supplier firms. Previously, a customer might deal with a variety of different specialized firms, each of which produced one specific kind of machine for a production line—say, in the pharmaceutical industry, a machine for dosing gelatin capsules with drugs or a machine for packaging capsules into blister packs. Now, major customers tend to prefer to deal with only one firm, a preference that has led to a substantial shift of power toward larger firms and an ongoing process of horizontal integration. In the words of one interviewee,

The market reacts better certainly to a well-integrated range of products, rather than to a main supplier with sub-suppliers. It is not seen as reliable—the supply done by your main supplier with sub-suppliers.

Previously, a large firm might work together with several smaller firms, which produced specialized machines that complemented its range. This is becoming less and less common as such firms are either being bought by larger firms or finding their niches disappearing. This is all the more marked because of changes in

customer requirements. Increasingly, large customer firms do ask not simply for machines but for a broad array of services relating to these machines, of a sort that smaller firms would have difficulty in producing. Some large firms in the area are seeking to reinvent themselves, providing a complete “turnkey” service to their customers, and perhaps eventually actually taking over parts of these customers’ manufacturing processes for them. Relationships between machine producers and their final customers appear to be getting closer and closer, with knock-on consequences for large firm strategies.

The [customer] firms, in pharmaceuticals, food etc, do not want anymore to have engineering offices internally and thus high costs, and they turn outside to expert people who are able to do everything. Considering that this doesn’t exist, slowly the bigger firms, which have the economic possibilities, tend to acquire on the market those machines that they lack, or the firms that they lack for their chain.

In the words of one of the large firms that has been most active in seeking to buy smaller firms:

A lot of companies are asking now just to have one supplier for the complete line of the complete factory. So they force you to create a pool of different suppliers in order to interface them with just one person, one face. So the reason for the concentration is also because our customers are pushing us to concentrate.

Thus, smaller specialized firms in the area have increasingly been bought out by larger ones. Furthermore, those smaller firms that remain independent are finding it increasingly difficult to gain access to customers. Some small firms are seeking new markets in the developing world, where customers are likely to be less technically demanding and also less insistent on having a single supplier. However, it is far more difficult for small firms to find new market niches than it was twenty or thirty years ago; the packaging machine industry is no longer expanding exponentially, and it shows increasing signs of being a mature industry.

All of this means that the Bologna packaging machine industry is coming to be dominated by a few large “group firms,” with close, long-run relations with customers, from which other smaller firms are gradually being excluded. Some highly successful small firms still produce for niches that are unattractive for one reason or another to larger firms, but very many now face the unpalatable choice of integrating their operations with larger firms (being bought out or becoming a dependent subcontractor) or going out of business. As the managing director of one of the largest firms in the district puts it,

In this field we exist really, when we have the control of the final customer. In manufacturing of industrial or capital equipment like this, if you manufacture capital equipment you have got to have the grip on the customer yourself. What you could say is that there is a

space for a small company, but they will supply mostly through the sales organizations of larger companies. That means they are nothing, they can be purchased easily, or destroyed or eliminated. Because the market here is not for this machine, it is for these customers, and if you don't have these customers, you don't exist. You have got to have these customers to exist.

Thus, the relative equality that used to exist between final producers no longer applies. Larger "group firms" are increasingly able to block others from gaining direct access to customers. This increasingly allows them to dictate terms to smaller final firms, which they can take over or treat as dependent suppliers, or, if necessary, eliminate.

Smaller final firms in the packaging machine industry are highly aware of this problem and have sought to respond to it. One possible answer has been to increase cooperation among each other, forming loose groupings of firms that seek to present a common face to customers on international markets. This has been helped by the existence of small firms in the district that specialize in organizing sales abroad and work on commission. However, such efforts face the usual difficulties of collective action⁵⁷ and a fundamental unwillingness on the part of small firm owners to compromise their independence through cooperation. Given the lock that larger firms have on important customers, one sympathetic observer believes that small firms in the area will face "huge difficulty" in sustaining their position.

This has knock-on effects for relationships between final producers and subcontractors. Previously, subcontractors might have a wide range of buyer firms to choose from. Now, their options appear to be narrowing more and more, as smaller final firms in the district are bought up by larger "group firms." While subcontractors have less buyer firms to choose from, the opposite is not true; large buyer firms face a veritable profusion of small subcontractors, which increases their ability to win favorable terms from them. As described by a local business association official,

It is obvious that the big firm has the ability to play around, because there are too many [subcontractors] today for the needs of the market. If one makes a contract on the market, supply is greater than demand.

Thus, there is evidence that strongly suggests that important changes are taking place in the Bologna packaging machine industrial district. In an earlier historical conjuncture, final firms enjoyed a rough parity in relations among each other, and relationships between these firms and their subcontractors were relatively egalitarian. All firms had a considerable variety of options, which they could pursue in their relationships with other firms in the locality. Now, this is no longer the case. Large firms are increasingly engaged in exclusive relationships with important final customers and are able to deny market opportunities to smaller ones. Furthermore, they have been engaged in a policy of buying smaller

firms and integrating them into groups. This has had consequences for the relationships between final firms and subcontractors; the latter now have fewer alternative choices should a relationship with a particular final firm break down. As a result, subcontractors are becoming more dependent on their final firms and have to accept arrangements that split the benefits of cooperation in a quite uneven fashion.

EFFECTS ON TRUST AND COOPERATION

The changes in power relations described previously appear to be associated with changes in both the forms and distributional consequences of cooperation, just as our theory would predict. Traditionally, cooperation among firms within the district has taken place on the basis of diffuse reciprocity. There has been little reliance on formal contracts, with final firms and subcontractors instead relying on informal agreements and commitments to underpin cooperation. As noted in the previous section, interviewees in smaller final firms typically talked of their relationships with their subcontractors in the language of personal relationships and reciprocity. As described by one manager of a small final firm, "What is applied is not a specific contract, it is a personal relationship between an office which puts out work and a small artisanal organization which produces it." This statement found ample confirmation in other interviews with smaller final firms in the district.⁵⁸ Managers of these firms repeatedly spoke of how they did not use contracts with their subcontractors but instead relied on personal relationships involving guarantees of work over the long term and occasionally other forms of gift exchange (such as provision of tools and facilities). It is unlikely that these relationships were "personal" in the sense that they involved strong affective commitments;⁵⁹ one firm might have relationships with many subcontractors. Instead, these personal relationships in the final analysis relied on informal norms about what was, or was not, acceptable behavior between firms. In the words of a local businessman,

There is a saying in these parts that a handshake is worth more than a piece of paper with writing on it. . . . If someone steps out of line once, tries to be clever in some way . . . there is a characteristic tendency which is particular to this area . . . to cancel [the deal].

Moreover, as local interviewees repeatedly testified, reputation played a highly important role in relations among firms; dishonest actors could expect their malfeasance to become quickly known in the community. In cases of repeated malfeasance, they could expect to be shunned.

The informal agreements negotiated on the basis of these norms involved benefits for both final firms and subcontractors. Subcontractors typically refrained from opportunism; they knew that if they were caught cheating, they would not only endanger their current business relationship but also have difficulties in find-

ing new ones. They also were prepared to provide a high degree of flexibility in circumstances where Williamsonian transaction cost economics would predict that hierarchy was the appropriate solution to problems of opportunism. Such flexibility might be expensive; subcontractors firms may have had to refit components at short notice or pay their employees overtime or have them work over the weekend to complete an order. However, it has been rewarded with long-term commitments from final firms, which, for their part gave informal guarantees to their subcontractors of steady work over the longer run and provided a reasonable share of the proceeds. Thus, smaller subcontractors had a reasonable guarantee of income over the longer run.

There is evidence that these practices—and the rules that gave them shape—were rooted in the rough equality that initially pertained between final firms and subcontractors, and that as power relations are shifting, so too are mutual expectations. As the previous section documents, the largest final firms have increasingly secured a lock on final markets and begun to buy up smaller competitors, decreasing the options available to subcontractors. Simultaneously, the larger firms in the area have sought to make their relationships with their subcontractors more formalized and “arms length” than they had been previously and to extract a greater share of the proceeds of cooperation.

In large part, this has been accomplished through making subcontractor relations more hierarchical. In contrast to traditional practice in the district, where final firms interact directly with a large number of subcontracting firms, the larger firms of the district are now increasingly seeking to develop a small number of subcontractors as “subsuppliers.” These subsuppliers manage subcontracting relations on behalf of the final firm so that the large firm, like Japanese manufacturers, is at the apex of a vertically oriented “Christmas tree” of supplier relations. Increasingly, the packaging machine industry in Bologna is being dominated by what Crouch and Trigilia call “networked firms” rather than “networks of firms.”⁶⁰

Clearly, this system still involves cooperation between subcontractors and buyer firms to take place. Equally clearly, these forms of cooperation are less egalitarian than the previous dispensation. The creation of this more vertically integrated system is conditioned on changes in the options available to, and thus the power relations between, different firms. The lock that big firms have on their final customers allows them to be sure that they are not building up potential competitors by integrating subsuppliers more closely into their production structure. As the managing director of one of the largest integrated firms in the district describes it,

Who could be possibly scared of a subsupplier acquiring some competence if I hold the customers? After all, I have the customers. He may learn to make a machine; he does not know how to conceive a machine, he cannot design a machine himself. He may copy my machine; and then to whom shall he sell it?

Furthermore, by imposing more hierarchical—and more formal—relationships on their subcontractors, the larger final firms are able to rebalance the distributional gains from cooperation in their favor. Subcontractors are still expected to cooperate with larger firms, in that they must still provide a high degree of flexibility and reliability. However, they must do this without the guarantees of work over the longer run that traditionally applied in the district. Informal commitments, based on quasi-personal relationships and community-based norms of behavior, are being replaced by contractual arrangements that can be renewed or abandoned as the final firm sees fit.

In some cases, relations between large firms and their subcontractors verge on exploitation. For example, a second very large firm in the district that has adopted a hierarchical pattern of vertically organized production has sought to develop its key subcontractors to a higher technical standard, helping them in the purchase of new machinery. However, this has had considerable costs for the subcontractors in question. While they are highly dependent on the buyer firm, which accounts for around 80 percent of their turnover, they have to sign up to formal contractual terms that are “very favorable” to the buyer firm and that provide no guarantee of future work or income. As a senior manager in the large firm describes,

We ask for a lot of flexibility from our suppliers! That is the main concern they have normally. They don't like to be treated in that way, because for us it is difficult to predict what is the workload that we would pass to our suppliers. So normally our projection is always pretty wrong. But on the other side, for them we are very important. So they just complain.

This is quite different from the traditional dispensation, in which both final firm and subcontractor shared risks and rewards to a much greater extent. However, subcontractors find it increasingly difficult to find work, except on these unequal terms. While they may still seek work from the smaller final firms in the district, which do not enforce hierarchy, these smaller firms constitute a dwindling part of the relevant population.

As Knight suggests, differences in the range of alternatives available in the case of breakdown seem to translate into differences in the power of actors to bring about distributional outcomes that favor their particular interests, so that there is evidence that larger firms have sought to take advantage of their powerful position to restructure relationships with smaller final firms and with subcontractors. This in turn has consequences for both trust and cooperation. As the bargaining power of larger final firms has increased, they have changed the terms of exchange, abandoning previously held informal norms and imposing increasingly hierarchical—and unequal—terms of exchange on their subcontractors. These subcontractors are no longer able to trust large firms in the district to provide guarantees of work over the long run as they traditionally did; instead, they must accept contractual terms that are highly unfavorable to them.

In the longer term, this can be interpreted as evidence of an important mechanism of institutional change, which is likely to have a knock-on impact on the informal institutions underlying trust and cooperation that we have previously described. Over time, the changes in the relative power of final firms (larger final firms in particular) and subcontractors are likely to lead to changes in general community expectations over the forms of cooperation that can be expected. This is all the more so if, as many observers predict, concentration and the power of four or five dominant “group firms” continue to increase over the next several years. If these predictions turn out to be correct, one may reasonably expect that the more hierarchical and less egalitarian sorts of cooperation inside subcontracting relations that we have described will come to dominate over the more diffuse sorts of cooperation, based on local informal institutions, that were previously extant. Insofar as subcontractors’ options in the case of breakdown diminish, and larger firms’ options remain static or increase, large firms will find it less necessary to offer cooperation to subcontractors (in the form of informal guarantees of work over an extended period of time). These changes in expectations may be expected to have knock-on effects on informal institutions, either rendering them redundant or potentially leading them to change so that they lead to less egalitarian forms of cooperation.

Finally, it is plausible that the mechanism identified in the Bologna case study operates in other industrial districts. As we have mentioned, there seems to be a general trend within industrial districts toward larger firms assuming an increasingly dominant role.⁶¹ In some districts, factors that are not of major importance in the Bologna packaging machine district may increase the bargaining weight of large firms in other districts still further. For example, certain phases of production are being subcontracted out to distant geographic locations in many districts; this is likely to increase the bargaining strength of large firms vis-à-vis those local subcontractors who remain. To quote Nicola Bellini again,

The Marshallian [i.e., traditional conception of the] district is a district where power relations are such that no-one is really the big power—even the *impannatore* in Prato is a strategic organiser in the system which is not so powerful, not hierarchically different from the other companies, part of the community. And this is what is changing in the districts. In some districts it has changed dramatically, very clearly, [such as] Sassuolo and Biella.⁶²

However, the extent to which power asymmetries between actors lead to institutional change may also be affected by other factors; for example, local governments have sought to bolster smaller firms in some districts, leading to variations in outcome across different contexts.⁶³ In short, there appears to be a growing asymmetry in power relations in districts other than packaging machinery manufacture in Bologna, and this is having important consequences for the organization of production in these districts.

CONCLUSIONS

In this article, we have suggested that much of the current literature on social capital has shallow microfoundations. We have proposed an alternative model, which privileges the effects of institutions on trust and trustworthiness. As we have suggested, this model offers certain intellectual advantages over the social capital hypothesis. It has relatively clear lines of causation. Furthermore, it can be linked to theories of institutional evolution and thus offer an account of how trust and trustworthiness may change over time.

It should be noted that this model does not sufficiently elaborate the feedback loops that frequently characterize arguments about trust creation. There is a clear break between the motor forces guiding institutional evolution (struggles over distributive outcomes) and the consequences in terms of trust and cooperation. As we have argued in the introduction, this has clear theoretical advantages; it allows us to distinguish between the causes and consequences of trust. However, it also means that the model may not capture certain aspects of the dynamics of trust creation: as Hardin argues, positive feedback may have some value in explaining change in trustworthiness and trust.⁶⁴ Furthermore, it only begins to incorporate learning effects: these too may affect whether trust and trustworthiness are extended into different areas.

Nevertheless, the model appears to fit well with empirical observations from industrial districts. These districts have been presented as evidence supporting the social capital “hypothesis” that civic associationalism is a major source of economic and political success. Yet, trust and cooperation in these districts seem more readily explained by an account that emphasizes institutional effects than by the more diffuse arguments of advocates of social capital. Reciprocity and network effects can better be treated as the consequence of specific institutional constellations than as independent causal factors in their own right. Cooperation in industrial districts appears to rest on community rules that correspond in their main features with the rational choice definitions of informal institutions advanced by Knight and others.

Furthermore, there is evidence, as we have suggested, of a causal mechanism for institutional change that rests on changing power relations between actors. This evidence is not definitive but is nonetheless highly suggestive: cooperative practices are being affected by changes in the relative bargaining weight of actors in a manner that is likely to have knock-on effects for previously existing institutions. It is difficult in the extreme to imagine that these institutions can survive in their present form if asymmetrical forms of cooperation come to be the norm, as seems likely. Insofar as subcontractors are forced in their bargaining with final firms to provide a high degree of flexibility, without a guarantee of work over the long run in return, their expectations will change in a manner that may come to affect institutional rules and finally result in a new cooperative equilibrium. Thus, an “institutional” model of trust, trustworthiness, and cooperation appears to pro-

vide a good account both of cooperation between actors and the evolution of this cooperation over time, in relations between economic actors. Indeed, it appears to provide a better account of trust in industrial districts, one of the main planks of evidence in support of the social capital argument than in support of the theory of social capital itself.

NOTES

1. See, for example, Robert D. Putnam, *Making Democracy Work: Civic Traditions in Modern Italy* (Princeton: Princeton University Press, 1993); Robert D. Putnam, *Bowling Alone: The Collapse and Revival of American Community* (New York: Simon & Schuster, 2000); Francis Fukuyama, *Trust: The Social Virtues and the Creation of Prosperity* (London: Hamish Hamilton, 1995); Russell Hardin, *Trust and Trustworthiness* (New York: Russell Sage, forthcoming); Margaret Levi, "A State of Trust," in *Trust and Governance*, ed. Valerie Braithwaite and Margaret Levi (New York: Russell Sage, 1998), 77-101; Karen Cook, ed., *Trust in Society* (New York: Russell Sage, 2000).

2. See, for example, Sidney Tarrow, "Making Social Science Work Across Space and Time: A Critical Reflection on Robert Putnam's *Making Democracy Work*," *American Political Science Review* 90, no. 2 (1996): 389-97; Margaret Levi, "Social and Unsocial Capital: A Review Essay of Robert Putnam's *Making Democracy Work*," *Politics & Society* 24, no. 1 (1996): 45-55; Filipo Sabetti, "Path Dependency and Civic Culture: Some Lessons from Italy about Interpreting Social Experiments," *Politics & Society* 24, no. 1 (1996): 19-44; Carlo Trigilia, "Capitale Sociale e Sviluppo Locale," *Stato e Mercato*, no. 3 (1999): 419-40; Arnaldo Bagnasco, "Teoria Del Capitale Sociale e Political Economy Comparata," *Stato e Mercato*, no. 3 (1999): 351-72.

3. Some authors also have expressed doubt about Putnam's statistical methodology; see, for example, Tarrow, "Making Social Science Work"; Robert W. Jackman and Ross A. Miller, "A Renaissance of Political Culture?" *American Journal of Political Science* 40, no. 3 (1996): 632-59.

4. Putnam, *Making Democracy Work*, 167.

5. *Ibid.*, 171.

6. *Ibid.*, 172.

7. *Ibid.*, 172.

8. James Coleman, *Foundations of Social Theory* (Cambridge: Harvard University Press, 1990), 91.

9. *Ibid.*, 306-10.

10. As many have noted, not all forms of trust benefit society.

11. Oliver E. Williamson, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting* (New York: Free Press, 1985); Douglass C. North, "Institutions and a Transaction-Cost Theory of Exchange," in *Perspectives on Positive Political Economy*, ed. James E. Alt and Kenneth A. Shepsle (Cambridge: Cambridge University Press, 1990), 182-94; Douglass C. North, *Institutions, Institutional Change and Economic Performance* (Cambridge: Cambridge University Press, 1990).

12. Andrew Schotter, *The Economic Theory of Social Institutions* (Cambridge: Cambridge University Press, 1981); Randall L. Calvert, "Rational Actors, Equilibrium, and Social Institutions," in *Explaining Social Institutions*, ed. Jack Knight and Itai Sened (Ann Arbor: University of Michigan Press, 1995), 57-95; Randall L. Calvert and James Johnson, "Interpretation and Coordination in Constitutional Politics," in *Lessons in Democracy*, ed. Ewa Hauser and Jacek Wasilewski (Rochester, N.Y.: University of Rochester Press, 1999);

Jack Knight, *Institutions and Social Conflict* (Cambridge: Cambridge University Press, 1992).

13. Jack Knight, "The Bases of Cooperation: Social Norms and the Rule of Law," *Journal of Institutional and Theoretical Economics* 154, no. 4 (1998): 754-63. Peter Hall expresses a similar intuition when he suggests that social capital may best be understood as "the institutional infrastructure that makes fruitful coordination among firms and other economic actors possible." See Peter A. Hall, "The Political Economy of Europe in an Era of Interdependence," in *Continuity and Change in Contemporary Capitalism*, ed. Herbert Kitschelt et al. (Cambridge: Cambridge University Press, 1999), 163.

14. Levi, "A State of Trust"; Hardin, *Trust and Trustworthiness*.

15. Henry Farrell, "Trust and Political Economy: Institutions and the Sources of Inter-Firm Cooperation" (paper presented at International Society of the New Institutional Economics Annual Meeting, San Francisco, 13-15 September 2001; Henry Farrell, "Trust, Distrust and Power" in *Distrust*, ed. Russell Hardin (New York: Russell Sage, forthcoming); Knight, *Institutions and Social Conflict*; Jack Knight, "Models, Interpretations and Theories: Constructing Explanations of Institutional Emergence and Change," in *Explaining Social Institutions*, ed. Jack Knight and Itai Sened (Ann Arbor: University of Michigan Press, 1995), 95-119; Jack Knight, "Social Norms and the Rule of Law: Fostering Trust in a Socially Diverse Society," in *Trust in Society*, ed. Karen Cook (New York: Russell Sage, 2000), 354-73.

16. Putnam, *Making Democracy Work*, 159.

17. *Ibid.*, 161.

18. Hardin, *Trust and Trustworthiness*.

19. See Wolfgang Streeck, "Production Constraints: On the Institutional Conditions of Diversified Quality Production," in *Social Institutions and Economic Performance: Studies of Industrial Relations in Advanced Capitalist Economies*, ed. Wolfgang Streeck (London: Sage Ltd., 1992), 1-41; also Alessandro Arrighetti, Reinhard Bachmann, and Simon Deakin, "Contract Law, Social Norms and Inter-Firm Cooperation," *Cambridge Journal of Economics* 21 (1997): 189: "The stability of the underlying relationships, and the expectation that potential contracting partners will respect general norms create substantial scope for flexibility beyond contract in the form of ad hoc understandings, give and take etc."

20. Hardin, *Trust and Trustworthiness*.

21. See Knight, "Social Norms and the Rule of Law: Fostering Trust in a Socially Diverse Society," in *Trust in Society*, 354-73, for an extended discussion of the requirements of such an explanation.

22. See Knight, *Institutions and Social Conflict*, chap. 3, for a more developed account of the effects of social institutions on social expectations and beliefs.

23. We note that compliance with the institutions in a given community may sometimes give rise to untrustworthy behavior and thus to generalized distrust rather than to trust. This may be true of Southern Italy, both historically and in the present; see, for example, Anthony Pagden, "The Destruction of Trust and Its Economic Consequences in the Case of Eighteenth Century Naples," in *Trust: Making and Breaking Cooperative Relations*, ed. Diego Gambetta (Oxford: Basil Blackwell, 1988), 127-41; Diego Gambetta, "Mafia: The Price of Distrust," in *Trust: Making and Breaking Cooperative Relations*, 158-75. The logic of this mechanism is precisely analogous with that of the one that we have identified, even if the effects are the reverse.

24. Peter A. Hall and Rosemary C. R. Taylor, "Political Science and the Three New Institutionalisms," *Political Studies* 44 (1996): 936-57; Richard Swedberg and Mark Granovetter, "Introduction," in *The Sociology of Economic Life*, ed. Richard Swedberg and Mark Granovetter (Boulder, Colo.: Westview, 1992), 1-26; Knight, *Institutions and Social*

Conflict; Joseph E. Stiglitz, "Formal and Informal Institutions," in *Social Capital: A Multifaceted Perspective*, ed. Partha Dasgupta and Ismail Serageldin (Washington, D.C.: World Bank, 1999), 59-68; Paul Pierson, "The Limits of Design: Explaining Institutional Origins and Change," *Governance* 13, no. 4 (2000): 475-99.

25. Gary J. Miller, "Rational Choice and Dysfunctional Institutions," *Governance* 13, no. 4 (2000): 535-47.

26. Knight, "Models, Interpretations and Theories" and "The Bases of Cooperation."

27. North, *Institutions, Institutional Change*; Williamson, *The Economic Institutions of Capitalism*.

28. Knight, "The Bases of Cooperation."

29. These arguments are developed at greater length in Farrell, "Trust, Distrust and Power."

30. Gary J. Miller, *Managerial Dilemmas: The Political Economy of Hierarchy* (Cambridge: Cambridge University Press, 1992), 16.

31. *Ibid.*

32. Although "local economies" are now being found in the south and northeast of the country as well; see Luigi Burroni and Carlo Trigilia, "Italy: Economic Development through Local Economies," in *Local Economies in Europe: Rise or Demise?* ed. Colin Crouch (Oxford: Oxford University Press, 2002).

33. Oliver E. Williamson, *Markets and Hierarchies: Analysis and Antitrust Implications* (New York: Free Press, 1975); Oliver Williamson, "The Economic Institutions of Capitalism."

34. Cooperation between final firms and subcontractors is discussed in more detail in Farrell, "Trust and Political Economy."

35. See, for example, Arnaldo Bagnasco, "Introduction: An Unexpected and Controversial Return," in *Small and Medium-Size Enterprises*, ed. Arnaldo Bagnasco and Charles F. Sabel (London: Pinter, 1995), 1-15; Carlo Trigilia, "Il Distretto Industriale Di Prato," in *Strategie Di Riaggiustamento Industriale*, ed. Marino Regini and Charles F. Sabel (Bologna: Il Mulino, 1989), 283-333; Bennett Harrison, "Industrial Districts: Old Wine in New Bottles?" *Regional Studies* 26, no. 5 (1992): 469-83; Charles F. Sabel, "Studied Trust: Building New Forms of Cooperation in a Volatile Economy," in *Explorations in Economic Sociology*, ed. Richard Swedberg (New York: Russell Sage, 1993), 104-44.

36. Gabi Dei Ottati, "Trust, Interlinking Transactions and Credit in the Industrial District," *Cambridge Journal of Economics* 18 (1994): 529-46; Edward H. Lorenz, "Trust, Community and Cooperation: Toward a Theory of Industrial Districts," in *Pathways to Industrialization and Regional Development*, ed. Michael Storper and Allen J. Scott (London: Routledge, 1992), 195-204.

37. Michael Taylor, *Community, Anarchy and Liberty* (Cambridge: Cambridge University Press, 1982); Michael Taylor, *The Possibility of Cooperation* (Cambridge: Cambridge University Press, 1987). See Dei Ottati, "Trust, Interlinking Transactions and Credit," for a fruitful extension of Taylor's logic to subcontracting relationships within industrial districts.

38. Bengt Holmström and John Roberts, "The Boundaries of the Firm Revisited," *Journal of Economic Perspectives* 12, no. 3 (1998): 73-94; Miller, *Managerial Dilemmas*.

39. Avner Greif, "Cultural Beliefs and the Organization of Society: A Historical and Theoretical Reflection on Collectivist and Individualist Societies," *Journal of Political Economy* 102, no. 5 (1994): 912-50; Michihiro Kandori, "Social Norms and Community Enforcement," *Review of Economic Studies* 59 (1992): 63-80; Calvert, "Rational Actors."

40. Marco Bellandi, "Research Briefing: Innovation and Change in the Marshallian Industrial District," *European Planning Studies* 4, no. 3 (1996): 357-68. See Patrizio

Bianchi, "Un Contesto Produttivo non Nasce dal Nulla: È Fatto di Conoscenze, Regole Sociali, Culture, Innovazioni, Finanziamenti," *Scuolaofficina* 93, no. 2 (1993): 5-8, for a similar formulation, and Dei Ottati, "Trust, Interlinking Transactions and Credit," for a discussion of the role of community "norms" in securing cooperation.

41. Sebastiano Brusco, "Small Firms and the Provision of Real Services," in *Industrial Districts and Local Economic Regeneration*, ed. Frank Pyke and Walter Sengenberger (Geneva: International Institute for Labour Studies, 1992), 182.

42. Knight, *Institutions and Social Conflict*, 54. Brusco emphasizes the importance of local tradition in creating an appropriate context for modern cooperation and argues that economic approaches fail to grasp these traditions. Carlo Trigilia, *Grande Partiti e Piccole Imprese: Comunisti e Democristiani Nelle Regioni a Economia Diffusa* (Bologna: Il Mulino, 1986), similarly stresses the importance of local "subcultures" in paving the way for industrial districts. Cultural factors of this sort may indeed play an important role in creating a context in which actors realize that certain forms of cooperation are possible and beneficial. Symbols and cultural beliefs may disclose or foreclose possibilities of action within a specific community, and thus affect actors' behavior and the institutions that arise from these interactions. Here, their role is anterior to the power relationships that we emphasize in our account; they may partially define the range of "possible" equilibria over which actors may bargain. For further development of these arguments, see the discussion in Jean Ensminger and Jack Knight, "Changing Social Norms: Common Property, Bridewealth, and Clan Exogamy," *Current Anthropology* (1997) 38, no. 1: 1-24; James Johnson, "Symbol and Strategy in Comparative Political Analysis," *APSA-CP: Newsletter of the APSA Organized Section in Comparative Politics* 8, no. 2 (1997): 6-9; Henry Farrell, "Constructing the International Foundations of E-Commerce: The EU-US Safe Harbor Arrangement," *International Organization* (forthcoming). We are grateful to Carlo Trigilia for reminding of us of the importance of these factors.

43. The findings reported here are the results of interviews carried out by Ann-Louise Lauridsen and Henry Farrell in spring/summer 1999 in Bologna. Seventeen firms in Bologna were interviewed, as well as twenty-three actors with knowledge of the local economy. The authors are deeply grateful to Ann-Louise Lauridsen for her indispensable part in gathering this data and for subsequent discussions relevant to the themes of this article. Ulrich Glassmann also participated in several of the interviews and played an important role. These interviews were carried out in the context of a four-country project on the "Governance of Local Economies," directed by Colin Crouch, Patrick Le Galès, Carlo Trigilia, and Helmut Voelzkow. We wish to acknowledge our gratitude to these scholars, as well as to others involved in the project, most especially Luigi Burroni.

44. These institutions are discussed at greater length in Farrell, "Trust and Political Economy."

45. The almost untranslatable expletive *beh!* has been translated in the most neutral and general formulation possible. Other equally valid translations might be "So much for him!" or "So much for that!"

46. See Farrell, "Trust and Political Economy," for a more detailed discussion.

47. As we note, much previous literature on industrial districts has been hostile to the rational choice perspective. However, we suggest that the more recent theoretical developments that we seek to build on offer a more nuanced understanding of industrial districts than simple economic explanations and a greater possibility of fruitful dialogue with nonrational choice approaches. Indeed, there is much common ground between our arguments and sociological arguments, such as those in Arnaldo Bagnasco, "Teoria Del Capitale Sociale e Political Economy Comparata," *Stato e Mercato*, no. 3 (1999): 351-72, and Carlo Trigilia, "Capitale Sociale e Sviluppo Locale," *Stato e Mercato*, no. 3 (1999):

419-40, both of which criticize much work in the political culture and social capital tradition for its oversocialized explanation of human behavior. We specifically refrain from imperialistic claims that rational choice theory can provide a complete account of human behavior in industrial districts, or indeed in other social contexts. Rather, our account is intended to contribute to emerging discussions between rational choice and nonrational choice accounts of human action.

48. Gabi Dei Ottati, "The Remarkable Resilience of the Industrial Districts of Tuscany," in *Local and Regional Response to Global Pressure: The Case of Italy and Its Industrial Districts*, ed. Francesco Cossentino, Frank Pyke, and Werner Sengenberger (Geneva: International Institute for Labour Studies, 1996), 37-66; Sebastiano Brusco et al., "The Evolution of Industrial Districts in Emilia-Romagna," in *Local and Regional Response to Global Pressure*, 17-36.

49. Maura Franchi and Vittorio Rieser, "Le Categorie Sociologiche Nell'Analisi Del Distretto Industriale: Tra Comunità e Razionalizzazione," *Stato e Mercato*, no. 33 (1991): 451-76.

50. For further information on Carpi, see Philip Cooke and Kevin Morgan, *The Associational Economy: Firms, Regions and Innovation* (Oxford: Oxford University Press, 1998); Mark Lazerson, "Factory or Putting-Out? Knitting Networks in Modena," in *The Embedded Firm: On the Socioeconomics of Industrial Networks*, ed. Gernot Grabher (London: Routledge, 1993), 203-26.

51. Philip Cooke and Kevin Morgan, "Growth Regions Under Duress: Renewal Strategies in Baden Württemberg and Emilia-Romagna," in *Globalization, Institutions and Regional Development in Europe*, ed. Ash Amin and Nigel Thrift (Oxford: Oxford University Press, 1994), 91-117, speaks more directly to the power struggles involved in this set of changes. We do not wish to argue that the Citera system was not an instance of successful collective adaptation, rather to suggest that students of industrial districts, even if they are more interested in the conditions for economic success than debates in institutional theory, should pay closer attention to the frequently conflictual interactions through which adaptation (or in some cases lack of adaptation) takes place. We note that some sociologists (e.g., Paul Hirst and Jonathan Zeitlin, "Flexible Specialization versus Post-Fordism: Theory, Evidence, and Policy Implications" in *Pathways to Industrialization and Regional Development*, ed. Michael Storper and Allen J. Scott [London: Routledge, 1992], 70-115) have explicitly argued that adaptation in industrial districts is often conflictual, but that this perspective has not very often been taken up in empirical work. For an important and valuable exception, see Richard M. Locke, *Remaking the Italian Economy* (Ithaca: Cornell University Press, 1995).

52. Nicola Bellini, interview by author, Pisa, May 1999.

53. Dei Ottati, "The Remarkable Resilience"; Brusco et al., "The Evolution of Industrial Districts."

54. On the history of the cluster, see Roberto Curti and Mauro Grandi, eds., *Per Niente Fragile: Bologna Capitale Del Packaging* [Not at All Fragile: Bologna, Capital of Packaging] (Bologna: Museo del Patrimonio Industriale, 1997); Vittorio Capecchi, "In Search of Flexibility: The Bologna Metalworking Industry, 1900-1992," in *World of Possibilities: Flexibility and Mass Production in Western Industrialization*, ed. Charles F. Sabel and Jonathan Zeitlin (Cambridge: Cambridge University Press, 1997), 381-418.

55. The motivation for making packaging machines across more than one sector is to stabilize future income through making it less dependent on the changing fortunes of customers within a particular sector (such as pharmaceuticals or foods).

56. Harrison, "Industrial Districts."

57. See Knight, *Institutions and Social Conflict*; Russell Hardin, *Collective Action* (Baltimore: Johns Hopkins University Press, 1982); Mancur Olson, *The Logic of Collective Action* (New York: Schocken, 1968).

58. For further details, see Farrell, "Trust and Political Economy."

59. More generally, see Edward H. Lorenz, "Neither Friends nor Strangers: Informal Networks of Subcontracting in French Industry," in *Trust: Making and Breaking Cooperative Relations*, ed. Diego Gambetta (Oxford: Basil Blackwell, 1988), 194-210.

60. Colin Crouch et al., *Local Economies in Europe: Rise or Demise* (Oxford: Oxford University Press, 2001).

61. Note, however, that there is no implication in our argument that the domination of large firms is historically inevitable or necessarily permanent. Insofar as this dominance is a product of external factors (typically, changes in patterns of demand in final markets), it may be attenuated or reversed by future changes in these external conditions.

62. Bellini, interview.

63. On the potential role of government in strengthening weaker actors, see Knight, *Institutions and Social Conflict*.

64. Hardin, *Trust and Trustworthiness*; Avner Greif and David Laitin, "How Do Self-Enforcing Institutions Endogenously Change? Institutional Reinforcement and Quasi-Parameters," unpublished paper, offers some initial ways of coming to grips with positive feedback loops of this sort.

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