Two theories of the origins of trust in markets

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ABSTRACT: This paper inquires into the origins of trust in the economy. It proposes two possible theories. The “exogenous” theory of trust is that trust as promise-keeping is an input from outside the market. But an alternative view, the “endogenous” theory of trust espoused here, is that trust is native to the market. On the endogenous view, the market generates the trust that is necessary for its functioning because promise-keeping is a source of economic advantage for market participants. I make the case for the endogenous theory of trust by means of a critique of three classic statements of the exogenous view. If the paper’s argument is right, the standard view of the relationship between the market and ethics may need to be revised. In its place, scholars may have to recognize that the ethical values that moralists see as besieged or undermined by market forces may trace their roots to the marketplace.

> "Whenever commerce is introduced into any country, probity and punctuality always accompany it.... Of all the nations in Europe, the Dutch, the most commercial, are the most faithful to their word. [This is not due to some unique Dutch national characteristic or racial distinction but is] far more reduceable to self-interest, that general principle which regulates the action of every man, and which leads men to act in a certain manner from views of advantage, and is as deeply planted in an Englishman as a Dutchman (Adam (Smith, 1763/1978)

It is a cliché that our economy could not function, except perhaps at a very primitive level, if people could not trust each other to keep their promises (Arrow, 1975; Sen, 1970, 1977). This problem is sometimes called the problem of non-simultaneity. In any but the most rudimentary exchange, one side performs first, so there is always a risk that the side

performing second will abscond before keeping its promise. It follows that if promises could not be trusted, most transactions would become impossible.

There is an immense economic literature devoted to trying to design the ideal contract or governance structures or allocation of property right so as to align the interests of contract partners so that the parties won't have the incentive to cheat each other (i.e., to opportunistically hold one another up, in the language of transaction cost economists). The law provides one solution. But for many reasons that are explored in the economic literature contracts are necessarily incomplete or implicit and so not fully enforceable by the courts.

Yet the fact is that people routinely keep their promises. There is no obvious trust deficit that prevents the economy from realizing its potential. For example, despite a lot of public handwringing about a supposed decline in trust, the recent financial crisis is more accurately diagnosed as the result of an excess of trust rather than a deficit of it. Why do rational economic actors keep the promises they make in contracts when they could default on them with legal impunity?

This question raises the issue of the origins of trust – or broadly ethics -- in the economy. In this paper, I examine two stylized or ideal-typical accounts of the sources of trust in the economy. Crudely, these accounts can be called the exogenous and endogenous theories of trust. They are not mutually exclusive, but they emphasize quite different factors. The first is the view that trust originates outside the market. The second is the view that trust is generated, as if by an invisible hand, by the operation of the market.

I follow the usual convention by using the term "trust", but "trustworthiness" or "promise-keeping" better describe the phenomenon that I investigate. I also use the term

“ethics” to describe promise-keeping together with other key values that “lubricate” the workings of our economy. For reasons of space, I don’t defend that choice here.

Two theories of trust

The exogenous theory of trust: The exogenous theory holds that trust depends critically on inputs from outside the economy. Markets function efficiently only with the admixture or supplement of morality to market forces – only if they are “lubricated” by morality, to use a recurring metaphor in this literature. People keep their promises even when it would be profitable to break them because they are motivated by pre- or extra-market values. On this view, left to themselves, market forces cannot enforce promise-keeping. Indeed, markets need to be protected from themselves by ethical norms. I will term partisans of this view the “moralists.” Under this rubric I lump together economically savvy business ethicists and economists who offer “humanistic” critiques of markets.

The exogenous view is held by most moralists. A classic statement of this view is Arrow’s. “The market has deficiencies of a kind for which ethics is a remedy” (2006). It “plays a functional role in the operation of the economic system.” “To get markets that work, you have to keep the other person from trying to cheat you at every moment. So morality is closely related to the workings of the market.” “[T]rust has a very important pragmatic value, if nothing else. Trust is an important lubricant of a social system. It is extremely efficient; it saves a lot of trouble to have a fair degree of reliance on other people's word.”

This view is sometimes coupled with the claim that trust is eroding and the moral capital that lubricates our economy is depleting. Fred Hirsch wrote in his book “The Social

Limits to Growth" (1978) that the morality that underpins the operation of the economy is a residue of pre-capitalist values that is depleting rapidly, not least because of the erosion or weathering of this moral legacy is subjected to by market forces. Put another way, some moralists believe that, left to itself, the market will subvert the conditions necessary for its operation.

It is a short step from this view to a conclusion that will be welcomed by business ethics scholars. That is, business schools should teach ethics and professional values rather than focus narrowly on profit maximization (e.g., Khurana et al. 2005; Ghoshal & Moran, 1996). And firms should reconceive their mission as being more than profit maximization.

The endogenous theory of trust: The view that I am going to defend holds that trust is native to markets rather than borrowed from outside of them. In the tradition of Adam Smith, on this view, rational economic actors are led as if by an invisible hand to choose to keep promises because it is in their interest to do so. In contrast with the exogenous theory of trust, which sees self-interest as leading to broken promises, the endogenous theory sees self-interest as promoting promise-keeping.

On the endogenous view, instead of being parasitic on exogenous (and possibly eroding) moral codes, markets reproduce the moral conditions for their own viability. Indeed, the endogenous theory goes even further and proposes that the heart of ethics or morality – including the same values that moralists draw on to criticize market conduct and outcomes – can trace its roots to market forces.

The endogenous view may be a minority one, but it has an illustrious lineage. Both Montesquieu and Adam Smith saw commerce as exercising a civilizing influence

(Hirschman). Smith confidently expected commercial relations to encourage ethical behavior. As quoted at the head of this paper, he said: "Whenever commerce is introduced into any country, probity and punctuality always accompany it" (Smith, 1763/1978). Smith noted that, "[o]f all the nations in Europe, the Dutch, the most commercial, are the most faithful to their word." The trustworthiness of the Dutch, he argued, was not due to some unique Dutch national characteristic or racial distinction but was "far more reduceable to self-interest, that general principle which regulates the action of every man, and which leads men to act in a certain manner from views of advantage, and is as deeply planted in an Englishman as a Dutchman."

How self-interest promotes promise-keeping

It may seem paradoxical to suggest that self-interest promotes promise-keeping. But it is perfectly logical *so long as the market rewards promise-keeping*. Smith spelled out the game theoretic logic immediately following the passage that I just quoted above: "A dealer is afraid of losing his character, and is scrupulous in observing every engagement. When a person makes perhaps twenty contracts in a day, he cannot gain so much by endeavouring to impose on his neighbors, as the very appearance of a cheat would make him lose. Where people seldom deal with one another, we find that they are somewhat disposed to cheat, because they can gain more by a smart trick than they can lose by the injury which it does their character."

Smith intuitively grasped one of the findings of modern game theory. It is well-established that in Prisoner's Dilemma (PD) games, if an exchange takes place only once, there is a unique equilibrium point, and that is mutual defection (Nowak 2011: 59). The same

result holds, by backward induction, if the exchanges are finite. But while there is no solution to the one-shot PD, the PD is easily solved simply by repeating the game enough times (Nowak 2011: 2). As Kreps (1990: 102-3) says, if we assume a repeated or "iterated" game in which rationally maximizing players expect to meet each other in an indefinite number of future rounds, "[n]ow the analysis changes dramatically."

Once there are repeated interactions between the same two players, and each player has a choice between cooperation and defection, then each player has the opportunity to punish previous defections. In this situation, "always defect" is no longer a strictly dominant strategy. Rational players repeatedly interacting for an indefinite number of rounds can sustain cooperation.

Even if there is zero probability of the players meeting in a subsequent round, cooperation can overcome defection in a PD, so long as other players can observe a player's behavior and refuse to cooperate with her if she ever defects (Hill 1990: 505). Just as a partner may establish a favorable reputation with her partner by consistently keeping her promises, so too her reputation may be observed by others. If she expects to be rewarded by the same or other partners for cooperating, then her reputation becomes a valuable asset in the sense that it serves to attract additional business. Potential partners, in their turn, can have confidence in her promises because they know that a breach of those promises will be costly to her. She risks losing the reputation she has built for being trustworthy and the business opportunities that reputation brings. As Kreps (1990: 107) points out, the nature of reputation is quite circular: "[I]t works because it works: B guards a reputation because it influences future trading opportunities; it has this influence because B guards it." In other words, while

it may be rational to defect in one-shot PDs game, cooperation is likely to be the more profitable choice in repeated games.

Although these findings are well-known, academics still often model market exchanges as one-shot PDs. Economists are notorious for doing this (e.g., Grossman & Hart (1986), Rajan & Zingales (1998), Williamson (1985: 169)). These economists make the transaction their basic unit of analysis. As Kreps (1990: 98) points out, they "study the requirements for a particular (ideal) transaction and the way various institutional arrangements approximate these requirements". I don't have space to go into the reasons why they make this choice, except to say that one shot games are more mathematically tractable than repeated games. But the consequences of their choice are fateful, because exchanges are rarely singletons. And by modeling them as one-shot PDs, economists artificially strip or abstract them from their contexts, i.e., from precisely the variables that do the work of restraining promise-breaking in the real world. People keep their promises because, if they fail to do so, they will lose the capacity to credibly promise in the future, with the loss of business opportunities that would entail.

In the next section I argue that moralists make the same mistake as economists by failing adequately to take into account the disciplining effect of repeat business and reputational considerations business on the behavior of economic actors. Since they overlook those factors, they predictably conclude that the problem of promise-keeping cannot be solved by the market. Consequently, market forces must be supplemented by ethics.

Three critiques

Arrow. My first case is Kenneth Arrow. In a series of influential papers, Arrow has argued that trust – or, more generally, an ethical code – "lubricates" the operation of markets. He has noted that "The market has deficiencies of a kind for which ethics is a remedy…" It "plays a functional role in the operation of the economic system." "To get markets that work, you have to keep the other person from trying to cheat you at every moment. So morality is closely related to the workings of the market." People won't transact with each other if they cannot have confidence in others' promises.

So far so good. But Arrow makes two additional claims. First, he says that while trust may benefit everyone, it is in the interest of any one firm or person to cheat.[1] (Arrow 1983). In other words, trust is a classic public good. Because it is a public good, trust will be undersupplied by the market because self-interested actors will choose to free ride. So trust – or a code of ethics -- "will not develop completely without institutional support." Trust depends on inputs from the culture. It is not native to the market.

Arrow also argues that trust cannot be traded in the marketplace. He says that, "[u]nfortunately [it] is not a commodity which can be bought very easily. If you have to buy it, you already have some doubts about what you've bought". "They are goods, they are commodities; they have real, practical economic value; they increase the efficiency of the system, enable you to produce more goods of whatever values you hold in high esteem. *But*

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[1] Casadesus characterizes Arrow 's view as follows: "One of the characteristics of a successful economic system is that the relations of trust and confidence between principal and agent are sufficiently strong so that the agent will not cheat *even though it may be `rational economic behavior' to do so*." Ramon Casadesus (My emphasis).

they are not commodities for which trade on the open market is technically possible or even meaningful". (Arrow, 1974: 23; my emphasis)

But both of Arrow's claims are questionable. Trust or trustworthiness is primarily a private good, trust is a private good, notwithstanding any public features it has. As we saw, it is a commonplace that trustworthiness creates business opportunities. Precisely because of the hazards of contracting, parties prefer to deal with others who have shown themselves to be trustworthy – in their previous dealings with the same and other parties.

Arrow is also mistaken when he says that trust cannot be traded. As Dasgupta (2000) points out, "even though there are no obvious units in which trust can be measured, this does not matter, because in any given context you can measure its value, its worthwhileness. In this respect, trust is not dissimilar to commodities such as knowledge or information." Like other intangible assets it is traded every day. For example, one business may purchase a brand name from another. Or one business may rent trust from another. As Macey (2013: 255) says, "honest but unknown companies that wanted to raise capital by selling their securities used to be able to 'rent' the reputations of powerful reputational intermediaries such as accounting firms, law firms, credit rating agencies, and even the investment banks that were underwriting the securities." Firms routinely invest in a reputation for trust. They do so primarily through by "going against their short term interests" (Dasgupta 2000). Earlier I quoted Kreps (1990) on how a reputation for being trustworthy can be "a valuable asset in the sense that it serves to attract additional business." In short, as if by an invisible hand, market exchanges should reinforce general trustworthiness, as each economic actor invests in a reputation for being trustworthy out of its own rational self-interest.

Sen. My second example is a pair of classic essays by Amartya Sen. Sen takes direct aim at Smith's parable about the butcher, the brewer, and the baker, from whose regard to their self-interest we expect our dinner. He questions whether Smith's invisible hand is alone sufficient to align the interests of buyers and sellers: "When Adam Smith pointed to the motivational importance of 'regard to their own interest,' he did not suggest that this motivation is all that is needed to have a flourishing system of exchange". Without a sense of ethical obligation, Sen says, businesses, "driven by self-interest," would "try to defraud the consumers," and customers would attempt to swindle the sellers. This will have economic consequences: "If he cannot trust the householder, the baker may have difficulty in proceeding to produce bread to meet orders, or in delivering bread without prepayment". Sen concludes that, "[e]very economic system has, therefore, tended to rely on the existence of attitudes … which supersede[s] the calculation of net gain from each unit of exertion. Social conditioning plays an extremely important part here".

Like Arrow, Sen supposes that the baker and his customers can only transact to their mutual advantage against the background of a *system* or supportive culture of trust. A necessary prerequisite is "a flourishing *system* of exchange." (My emphasis). At another point he refers to a "mutual confidence in certain rules of behavior." That system in its turn is built on motivations *other* than what Smith calls the parties' "regard to their self-interest." Moreover, like Arrow, Sen treats the system or culture as a public good, in the economist's sense of the word. In his view, these rules of behavior don't derive from the invisible hand at work, through choices of individual traders in the marketplace, but are inputs extra-market sources. In other words, markets will function, if at all, only at lower levels of efficiency unless they are embedded in cultures which value promise-keeping.

But Sen is no more convincing than Arrow at showing that the butcher, the brewer, and the baker are not already incentivized to keep their promises. For one thing, cheaters are exposed to possible legal sanctions. But, far more important, the baker may never sell the customer another loaf of bread again, and other customers may shun the dishonest baker. Sen's analysis may apply to a one-shot PD, but with rare exceptions the relationships between bakers and their customers are not spot market exchanges, but repeated ones. In the circumstances, it would be self-defeating for either the baker or the customer to cheat the other.

Shleifer & Summers. My final case is a well-known article by Andrei Shleifer & Larry Summers (1988). In this article, Shleifer and Summers describe how a hostile takeover might be used by shareholders to expropriate the wealth of their firm's employees.

Shareholders need to make credible promises to their employees of higher wages and continued employment in order to induce the employees to accept lower training wages, to motivate them to work harder, and generally to encourage them to make what Williamson calls specific investments in the firm. But the employees know that when the time comes for the firm to make good on these promises, the shareholders may regret the promises and try to break them. In the meantime, technological changes have made the employees' skills obsolete. Or it may have become profitable to fire older workers whose productivity is less than their pay. The problem for both parties, then, is that if the employees cannot trust the shareholders to keep their promises, there won't be a deal, and both sides will be worse off than they might otherwise have been. "If potential stakeholders believe that their contracts will surely be violated whenever they collect more from the firm than they put in, they will

not agree to implicit contracts” (1988: 45). Readers will instantly recognize this as the problem of credible commitments. Robert Frank (1988: 47) defines this problem as follows: "The commitment problem ... arises when it is in a person's interest to make a binding commitment to behave in a way that will later seem contrary to self-interest".

The question posed by Shleifer & Summers is how the shareholders can have their cake and eat it too. How can they make credible promises to the firm’s employees but break their promises when they have become economically burdensome? The solution that Shleifer & Summers propose is the hostile takeover. The scheme works like this: The shareholders deliberately hire unquestionably trustworthy managers. These managers are individuals for whom keeping the firm’s promises to its employees has priority over shareholder wealth maximization. Because these managers are trustworthy, the employees will believe their promises.

If at some future time the firm’s promises become liabilities, the managers will of course refuse to break them. That is where the hostile takeover come in. To break the firm’s promises, the shareholders will sell the firm over the heads of the managers to a hostile raider. The raider will then replace the managers with new ones who will break the firm’s promises. The shareholders will share with the raider the rents from expropriating the employees’ specific investments.

So what is wrong with Shleifer & Summers’ story? The critical question is the likely reaction of the firm’s current employees to the broken promises. Will they trust the new management’s promises? If they don’t then the whole scheme will have failed. The firm will have destroyed what Shleifer & Summers call one of its “most valuable assets,” namely its ability to make credible promises to its employees. In place of promises, the new

management will have to pay upfront for the employees' specific investments in the firm. Presumably, anticipating this result, the raider likely won't risk launching the takeover bid in the first place.

Shleifer and Summers half-heartedly argue that the new management will be able to win the trust of the employees because *it* did not break any promises. Howse & Trebilcock (1993: 761) make the same claim. They say that a "negative reputation logically [cannot] attach to the post-takeover firm, since it no longer has any essential link with the pre-takeover [shareholders] who/ engaged in the opportunistic conduct." Similarly Chapman (1993: 584) says: "after all, [the raider] has not committed any breach of trust, since it did not make any promise…." (But he goes on to note that "this assumes that the acquirer's reputation can continue sufficiently unsullied so that … it can recapture all of the benefits of implicitly recontracting with those same employees again."). But only a lawyer could take these claims seriously. They rest great weight on a mere technicality. Curiously, Shleifer & Summers appear to concede this point. They note that "when the acquirer and the stakeholders renegotiate after the breach, they are unable to do so efficiently" (1988: 43). A final point is that, even if the scheme worked, it could presumably only be used once in a generation or more.

Two lessons may be drawn from this case. First, to judge by the convoluted scheme that was necessary to try to expropriate the firm's employees, breaking promises must be extremely hard to do. Second, even all that cunning may not suffice to make the scheme work.

In the three critiques, I have questioned the claim made by the moralists that promise-keeping or trustworthiness must necessarily be imported from outside the market. I have argued against the moralists that trust flourishes in markets precisely because trustworthiness is in homo economicus's interest. What surer foundation is there for trusting a partner than the knowledge it is the partner's interest to keep its promise?

One way of testing this claim experimentally is to see what a purely selfish actor would do. There is a substantial and growing body of evidence that supports the case made here. I will cite only the experimental work of Ernst Fehr and his collaborators (2008). They conclude that "it is an empirical fact that selfish subjects mimic fair-minded behaviors in repeated interactions." Fehr et al. add that game theoretic models off reputation formation have the same results: "strictly selfish individuals have an incentive to mimic fair-minded persons in a repeated setting and to exert high effort when offered a non-competitive wage rent, because this guarantees more rents in the future." Thus, contrary to Sen's fear, buyers' and sellers' regard for their self-interest alone may generally be perfectly adequate to motivate honest dealing.

This analysis may have still more radical implications for our understanding of the genealogy of trust and other ethical values. If market incentives reward ethical conduct, that should stimulate a "race to the top," as rationally self-interested actors seek to maximize new business opportunities by cultivating a disposition for keeping their promises and treating others fairly. Given the uncertainties of the market, cultivating a disposition to do the right thing may be more efficient than a case-by-case calculation of the costs and benefits of acting ethically. In that case, as Adam Smith expected, markets should not only promote ethical behavior, but ethical *people* as well.

Thus the moralists' critique may need to be stood on its head. Rather than the market having to import ethical values from non-market domains, it may export ethical values to those domains. The ethical values that critics see as being besieged or undermined by the market may themselves be quintessentially market values that are learned through participation in the market. In this way, instead of destroying its own moral foundations, the market may reproduce and renew them.

This conjecture find support from some recent studies. In perhaps the best known example (Henrich et al. (2004), economists and anthropologists ran Ultimatum Game experiments in some sixteen nomadic, pastoral and agricultural societies. The experimenters found wide variations in offers by proposers, ranging from zero to nearly 100% of the proposer's endowment. The researchers identified a single factor that explained the incidence of fair offers across societies: the exposure to market exchange. As Paul Zak (2008, 274, 6) has commented, this set of experiments exposes the error in the "cartoon of market exchange." Experimental subjects in societies that traded "appear[.] to have understood that trade feely entered into necessitates the acquisition of reasonable gains for both parties. Repeated trade is most likely to arise when parties work out a fair distribution of gains. …. When exchange is curtailed, the opportunities to create wealth are fewer" (Zak, 276; see also Johnson & Mislin 2011 ("subjects send less in trust games conducted in Africa than those in North America")). In another recent experiment, Hoffman & Morgan (2015) conducted a battery of social preference experiments on business people in two cutthroat industries (cybersquatters and pornographers) and Berkeley students. Their finding: The business people were more altruistic, trusting, trustworthy, and lying averse, then the students.

None of this would surprise the heirs of the Enlightenment. As Montesquieu said at the beginning of his discussion of economic matters in the “Spirit of the Laws,” “it is almost a general rule that wherever manners are gentle, there is commerce; and wherever there is commerce, manners are gentle” (cited in Hirschman). In his remark cited earlier, Adam Smith made the same point in almost the same words in discussing what he called probity. One of those heirs is Deirdre McCloskey. In her book on the bourgeois virtues (2006: 158-9), she writes about how the “market has nourished virtues, improved our souls, not corrupted them; made us less materialistic, less violent, less superficial; markets and even the much maligned corporations encourage friendships wider and deeper than the atomism of a full-blown socialist regime or the claustrophobic, murderous atmosphere of a traditional village”.

Recently, another heir, Steven Pinker (2011), has described this civilizing process in even more sweeping terms than Smith: "As Europe became more urban, cosmopolitan, commercial, industrialized, and secular, it got safer and safer." The rise of “technological progress [allowing] the exchange of goods and services over longer distances and larger groups of trading partners” so that “other people become more valuable alive than dead” and “are less likely to become targets of demonization and dehumanization.”

Conclusion

In what is probably the consensus view among business ethicists, ethics is seen as a means to regulate self-interest, both in order to prevent its ravages to society and to permit the economy to function at a higher level of efficiency. A key ethical value that supports the operation of the market is what Adam Smith calls probity. That is promise-keeping or trustworthiness – I follow scholarly convention and refer to this as “trust” – between buyers

and sellers (of goods, services and labor) in the marketplace or workplace. Despite recurring fears that trust is in nationwide decline under assault from unregulated markets, trust appears to be flourishing.

This paper has inquired into the origins of trust in the economy. It proposes two possible theories. The “exogenous” theory of trust is that trust as promise-keeping is an input from outside the market. But an alternative view, the “endogenous” theory of trust, espoused by this paper, is that trust is native to the market. On this second view, the market generates the trust that is necessary for its functioning because promise-keeping is a source of economic advantage for market participants. I make the case for the endogenous theory of trust by means of a critique of three classic statements of the exogenous view.

If the paper’s argument is right, the standard view of the relationship between the market and ethics may need to be revised. In its place, scholars may have to recognize that the ethical values that moralists see as besieged or undermined by market forces may trace their roots to the marketplace. This conclusion raises the possibility that, on closer study, many of the ethical values that moralists use to judge markets, and generally to find them wanting, may turn out to be quintessentially market values.

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