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FORMAL AND INFORMAL MARKET INSTITUTIONS: EMBEDDEDNESS REVISITED*



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Abstract

Market exchange involves many cognitive and non-cognitive processes . e.g., search, inference, prediction, negotiation. Much attention has been devoted to these issues both in theory and in experimental economics. I focus on the enforcement of market transactions against opportunistic behavior. I first discuss the different mechanisms that can deter opportunistic breach of contract. Some of these mechanisms rely on rational thought and self-interest; others rely on intrinsic motivation, including emotions. Implications for institutional design are summarized. I then discuss the different types of social norms that are needed to support different mechanisms for the assignment of individuals to task, either within a family and a hierarchical organization, or by the market. This framework provides insights on the normative content that is most conducive to economic efficiency. In the last and central part of the paper, I examine how behavioral tendencies interact with norms, incentives, and assignment mechanisms to support or undermine market institutions. I start by discussing how altruism and rivalry feed into the competitive process. Next we examine the relationship between mate selection and market matching. Breach deterrence is introduced next, first from the point of view of risk attitudes and excusable default. This leads to a discussion of morality and preferences over process. The paper ends with a brief discussion of individualism and agency. Implications are drawn regarding knowledge gaps. Investigation is needed on how different cultures view different types of incentives and deterrence mechanisms.

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1. Introduction

The development of formal institutions is often seen as displacing informal ones. The logic of the argument is that informal institutions exist because they provide a service, but formal institutions can provide the same service more effectively — either because they are more efficient, more inclusive, or both. When formal institutions are put in place, informal institutions are expected to disappear since they are costly to maintain and are no longer needed. While this argument carries some weight, it fails to recognize that economic exchange takes place between individuals and, as such, is nearly always embedded within a social context. The presence of a social context does not disappear with the introduction of formal institutions. This is the embeddedness hypothesis of Granovetter (1985).

To illustrate with a simple example, imagine a community without formal marriage ties, only cohabitation. In such environment, we expect couples to stay together as long as they find their relationship beneficial. To this effect they may develop strong interpersonal ties. The logic of the earlier argument predicts that strong interpersonal ties between cohabiting couples should disappear once a formal marriage contract is introduced. After marriage, partners are expected to act towards each other in an impersonal manner affected only by the terms of their contract and the laws regulating married couples. Yet, as I hope is obvious to anyone, this is not what happens: cohabitation fosters interpersonal ties and triggers strong (good and bad) emotions that are not eliminated by marriage.

Based on this, it is incorrect or even futile to imagine that the role of formal institutions is to substitute themselves to informal institutions. A more accurate view is to regard formal institutions as enabling informal institutions to perform better. For instance, in the above example, marriage may help couples to stay together after a small quarrel. Since couples invariably quarrel at some point or another, formal marriage makes their union more durable by introducing sanctions for breach of contract. By sustaining cohabitation, marriage protects investments towards household public goods (e.g.,

raising children), thereby increasing efficiency (e.g., Mnookin and Kornhauser 1979). The formalization of marriage as a contract between two individuals may nonetheless reduce the need for other relation-specific investments, such as the involvement of the spouses' families in arranging the marriage and in exerting social pressure against its dissolution.

A similar reasoning applies to many forms of market exchange. In the absence of formal institutions, trade is often organized around long-term relationships — e.g., between employer and worker, supplier and client, patron and client – often with the support or mediation of other social actors. With repeated exchange comes familiarity and social interaction. These features do not disappear with the introduction of formal market institutions, even if the focus of social exchange may evolve to reflect the different opportunities made possible by formalization. The truth is that trade is a form of social exchange and any social exchange is embedded in a social context. Interpersonal interaction is not eliminated by formal institutions and contracts. The role of good formal institutions is to reinforce tho forms of social interactions that lead to a more efficient, more inclusive outcome, and to discourage those interactions that reduce efficiency and ostracize certain groups and individuals.

The above observations form the organizing principle behind my critical examination of the literature and the derivation of tentative policy implications regarding the introduction of formal market institutions. My emphasis is on how humans perform in markets, especially in a repeated contract setting. The organizing thread is identifying the motivations that people follow when interacting in markets, and what this tells us about the role of formal institutions. To this effect, I review and discuss the experimental literature that documents how human behavior responds to changes in contractual design – e.g., material incentives, enforcement mechanism, and ability to coordinate with or punish others. I put particular emphasis on two central themes: how humans interact in environments that resemble a market setting; and how they perform in a repeated contract setting. My ultimate objective is to derive tentative policy implications regarding the interface between formal and informal market institutions.

There already exists a large literature on this topic – notably seminal work by economists such as North (1973, 1990), Cooter (1988), Greif (1993, 1994, 2002), Bowles (1998), Platteau (1994a, 1994b), Dixit (2004), and Greif and Tabellini (2010, 2012), but also anthropologists such as Mauss (1973), Polanyi

(1944), Sahlin (1972), and Ensminger (1992), historians such as Braudel (1986), and sociologists such as Geertz et al. (1979) and Granovetter (1985). Many of the issues raised here already appear in Smith (1759, 1776). Experimental evidence has also been provided by the cross-cultural project (e.g., Henrich et al. 2005, 2010).While I have benefitted immensely from the work of all these authors, my objective here is not to offer a comprehensive summary of their contribution but rather to revisit some of their ideas and insights in the light of recent experimental evidence regarding human behavior. For this reason, I endeavor to keep the references to the literature to what I hope is novel in my presentation.

Market exchange involves many cognitive and non-cognitive processes – e.g., search, inference, prediction, negotiation. Much attention has already been devoted to these issues both in theory and in experimental economics. I choose to focus on the enforcement of market transactions, with a special focus on transactions that entail the possibility of opportunistic behavior. I will organize my presentation primarily around examples of transactions pertaining to goods or labor. As will be clear from the discussion, similar issues arise in other markets, such as those for credit and insurance, where they have typically received more attention. I also do not discuss the protection of property rights against non-contractual violations. This is an interesting topic in its own right, but it would take us too far afield.

The outline of the paper is as follows. I begin in Part 1 by introducing different mechanisms that can deter opportunistic breach of contract. Some of these mechanisms rely on rational thought and self-interest; others rely on various forms of intrinsic motivation, including emotions. Implications for institutional design are summarized. In Part 2 I discuss the different types of social norms that are needed to support different mechanisms for the assignment of individuals to task, either within a family and a hierarchical organization, or by the market. This framework provides useful insights as to the type of normative content that is most conducive to an effective performance of these different assignment mechanisms. Part 3 is the heart of the paper. Starting from the principles derived in Parts 1 and 2, I examine how human behavioral tendencies interact with norms, incentives, and assignment mechanisms to support or undermine market institutions. I start by discussing how altruism and rivalry feed into the competitive process. Next we examine the relationship between mate selection and market matching.

This leads me to suggest that the operation of markets is intuitively understood by humans because it resembles other social processes that evolved beforehand. Breach deterrence is introduced next, first from the point of view of risk attitudes and excusable default. This then leads to a discussion of morality and preferences over process, as distinct from preferences over material outcomes. We end with a brief discussion of individualism and agency, a topic on which more work by economists is needed. In the conclusion, implications are drawn regarding knowledge gaps. In particular, I call for more investigation of how different cultures view different types of incentives and deterrence mechanisms and I offer some ideas on how this could be achieved.

2. Breach deterrence mechanisms

Market transactions are contracts, and most contracts have delayed obligations. This naturally applies to all markets in which the passage of time is of the essence – credit, insurance, labor, utilities, services. It also applies to many transactions pertaining to the sale of goods. Examples include: delivery (if a client placed an order); pick-up (if a supplier took an order); payment (if client did not pay upon delivery); and warranty (if the item or service was faulty).

It follows that the very first issue that market institutions must address is how to deter opportunistic breach of contract. Without trust, economic performance suffers (e.g., Algan and Cahuc 2010). Several mechanisms to sustain (rational) trust have been identified in the literature. They can be grouped into four broad categories: (1) intrinsic motivation; (2) fear of reprisal; (3) loss of relationship; and (4) loss of reputation (Fafchamps 2010). Much of the economic literature on market institutions and breach deterrence has focused on laws and courts, which fall under the second category.

Intrinsic motivation includes a variety of human emotions that arise in social interactions, such as empathy, altruism, guilt, and shame. With the right upbringing and social norms, these emotions can be harnessed in support of contract performance. Other emotions, however, can also obstruct compliance with contract terms, such as envy, rivalry, and inequality aversion. We revisit several of these issues in Part 3 of the paper.

Fear of reprisal encompasses two broad types of punishment: legitimate, and illegitimate. Legitimate

punishment relies on the use of courts backed by the power of a modern state with a monopoly over legitimate violence. Illegitimate punishment includes a wide range of practices, going from social disapproval, insults, and threats, to the reliance on thugs, criminal organizations, and corrupt agents of the state.

Much of the economic literature on market institutions and breach deterrence has focused on legitimate punishment by laws and courts – which are equated with 'formal market institutions'. The dominant paradigm in economics is articulated around the assumption of self-interested rational agents. In this framework, deterrence works if agents anticipate that opportunistic breach will trigger court action and result in a loss larger than the gain from not complying with the contract. This means that, to be an effective deterrent, the threat of court action must be credible (i.e., subgame perfect). In practice, there are many transactions for which this condition is not satisfied. The first possibility is that laws are inadequate and courts ineffective. Much has been written on this important topic, so I need not revisit here. Even when market-friendly laws and courts are in place, however, there are many reasons why private agents may not use them: going to court is expensive, both in terms of money and time; the defendant may be 'judgement-proof', that is, without assets to service the debt; and the plaintiff may be unable to demonstrate contractual breach.

All three conditions are more likely to arise in less developed countries. Economic agents are poor and, as a result, often engage in small transactions for which the cost of going to court far outweighs the possible gain. Being poor, they are also often judgement-proof, making it unlikely that the plaintiff would recover damages. Finally, illiterate buyers and sellers find it difficult to create the paper trail that would document the existence of a contract and its violation by one of the parties. For these reasons, all but the largest transactions among deep pocket economic agents are beyond the reach of direct enforcement by legal institutions (Fafchamps 2004, Bigsten et al. 2000).

Retaliation also involves strong emotions, such as fear, anger, outrage, self-righteousness, revenge, cunning, lust for power, etc. Much of the economic litterature on market institutions has ignored these considerations, focusing instead of rational agents. But emotions can entice agents to engage in legitimate or illegitimate retaliation even when doing so is irrational, i.e., when it generates costs and risks that outweigh material gains. We will discuss in Part 3 the available evidence on people's willingness to engage

in costly punishment for actions that are perceived as breaching a contract, implicit promise, or norm of behavior.

A third category of breach deterrence mechanism is the fear of losing a valuable relationship (e.g., Fafchamps and Minten 2001). This form of breach deterrence mechanism only applies to market exchange that is repeated between two economic agents over time – what the literature sometimes calls 'relational contracting'. Perhaps the most common form of relational contracting is the so-called permanent employment contract, a labor contract that has no stipulated ending date (other than compulsory retirement wherever applicable). Relational contracting is nonetheless found in many other markets: utilities, banking services, insurance contracts, maintenance contracts, etc. It is also extremely common in markets for goods and commodities: most firms have regular suppliers from whom they purchase the majority of their raw materials and goods for sale. Once a commercial relationship is established, orders are placed over the phone or internet, goods are delivered, often by a third-party transporter, and an invoice is issued with a set time for payment.

Relational contracting has two main advantages: it economizes on the cost of finding new matches; and it enables agents to deal in a more trustworthy manner. The two motives are intimately related: it is precisely because relational contracting economizes on search and screening costs that it creates a value to the relationship. The fear of losing this valuable relationship is then what deters opportunistic breach. In economics this idea has been formalized as a repeated game. A large literature now exists that refines this basic construct – see Fafchamps 2010 for a summary.

The fourth category of breach deterrence mechanism that we consider here is the fear of losing reputation. This concept is distinct from losing a relationship. While a relationship only involves two economic agents, reputation involves a larger set of agents, typically in a given industry, location, or social group. Losing my relationship with a supplier may cut supplies from that source; losing my reputation with all suppliers may cut all sources of supply – and mean the end of my business. It follows that economic agents value their reputation and are willing to sacrifice a short-term gain in order to preserve their good name (Tadelis 1999).

Many formal institutions seek to reinforce reputation mechanisms. The first threat to any reputation

mechanism is identity theft: someone using my name, brand, or trademark to abuse customers, employers, etc. Formal institutions therefore exist that establish and protect identity – e.g., photo id, fingerprinting, business registration, trademark protection. They also deter individuals from changing identity in order to evade contractual obligations.

The second threat to any reputation mechanism is the spread of malicious or inaccurate information. Indeed, if reputation is valuable, the temptation is strong for agents to circulate erroneous information to hurt their competitors (e.g., other firms, other employees or employers). Formal institutions exist that deter libel and defamation. A free press, protected by law, can be a powerful tool to expose defective products, abusive employers, and false advertising. Specific formal institutions may also arise for the sole purpose of circulating accurate information. Examples include private and public agencies dealing with: credit report and credit reference; credit rating; consumer protection; environmental protection; health and safety; auditing of publicly traded corporations; disclosure rules for charities; etc. Many newly created IT service providers similarly seek to protect the identity of their users against misappropriation, and offer reputation mechanisms too (e.g., Amazon, eBay, Expedia). What the internet has not managed to prevent yet is the circulation of malicious messages (e.g., through reposting and retweeting) – i.e., the industry has not managed to introduce the equivalent of legal protection against libel and defamation.

What this discussion demonstrates is that formal institutions can and do play an important role in the promotion of markets. But they do not primarily achieve this by enforcing contracts directly. Rather, they seek to reinforce informal contract enforcement mechanisms. This observation applies to reputation, as we just saw. But it also applies to other mechanisms. In particular, a number of laws and formal institutions seek to shape the creation and dissolution of contractual relationships in a direction that is seen as socially beneficial. This includes: grades and standards; standardized weights and measures; and rules about the listing of ingredients and other compulsory disclosures. These interventions seek to minimize conflicts due to misrepresentation by one party to a transaction. Rules about bankruptcy and fraud similarly seek to regulate what happens if one agent cannot pay another. Many countries also have laws and norms directing the conditions under which a relational contract may end – think of laws and regulations concerning unfair dismissal, undue termination of a rental or land lease, or the non-renewal

of a health or life insurance contract.

Formal institutions also seek to curb certain forms of informal contract enforcement – particularly the reliance on thugs and violence. It has been argued that one of the primary reason for the establishment of institutions of public order is the reduction of the use of inter-personal violence to adjudicate disputes (e.g., North 1973). By imposing a monopoly over the use of legitimate violence while offering alternative ways of resolving private conflicts, the modern state has singularly reduced recourse to inter-personal violence to resolve contractual disputes. To convince ourselves of the difference this makes, we only need to remember that a high proportion of violent crime is associated with commercial conflict in sectors (e.g., drug trade, prostitution, gambling, human trafficking) that are construed as illegal and hence for which legal redress cannot be sought.

In general formal institutions do not enforce contracts directly – they only deter opportunistic breach by offering damages and other forms of reparation after the fact. In special cases, however, formal institutions are put in place to directly enforce contracts, without any delay or possibility of default. Examples of such institutions include stock markets, commodity exchanges, and other organized market in which participants must post a bond before being allowed to contract. Only authorized brokers can place a purchase or sale order in an organized exchange, and this order is guaranteed by the large bond that the broker has typically put in an escrow account. Public auction floors often follow similar rules, e.g., requiring participants to open a credit line with the house before being allowed to bid.

With the exception of organized exchanges, we have seen that formal institutions deter opportunistic breach primarily in two ways: (1) by offering a strictly organized process for the adjudication of contractual disputes, which economic agents may call upon at their convenience, but which de facto is only relevant for reasonably large transactions among non-poor agents; and (2) by laying down an environment in which an extremely diverse and ever changing set of public and private agencies support informal mechanisms for the enforcement of contracts, at the exception of inter-personal violence. It is therefore misleading to oppose formal and informal enforcement mechanisms as if the former was a full substitute for the other. The truth is that formal institutions operate primarily by guiding and reinforcing relational contracting and reputation mechanisms.

These observations leads to the key insight behind the rest of this paper: since formal institutions ultimately rely on informal ones to achieve their objective of fair and efficient exchange, we need a better understanding of informal institutions to make sense of market development.

As we have shown above, market interaction can trigger a wide range of emotions – guilt, shame, anger, rivalry. These emotions can help deter opportunistic breach of contract even when, by themselves, they are devoid of strategic purpose. To illustrate, imagine that someone gets angry because I have cheated him in a contract. Telling this person that his anger is calculated to strategically deter breach will only inflame him more: it is equivalent to suggesting that his anger is not 'genuine' and he is just pretending – in other words, that he is a liar and a cheat, no better than I am. In other words, anger seems to be morally justified only if it is uncontrollable and non-strategic. As this example illustrates, emotions are not dictated by reason – they represent an instinctive and often irrational response to an action taken by ourselves or someone else.

Although emotions may not follow a reasoned strategic motive, they nonetheless are embedded into a strict logic, and this logic is that of morality: these emotions are ultimately triggered by the transgression of a social norm either by ourselves or by someone else. It follows that the emotions that are mobilized by economic transaction depend on the moral judgement that people pass on their actions and those of others. In order to predict which actions individuals take after a breach of contract, we must therefore be able to predict what moral judgement they will pass on that action. If contract non-compliance is deemed excusable by both parties, for instance, it will trigger no guilt from the breaching party and no anger from the aggrieved party.

The remainder of this paper is devoted to an exploration of these ideas. We start by developing a way of thinking about social norms not as moral absolutes that must be followed in all circumstances, but rather as sets of internally consistent norm systems that apply to different domains of human activity. At any point in time, individuals may have several such sets of norms that they apply selectively depending on the domain of activity in which their economic interaction is occurring. We also discuss what happens when individuals apply norms from one domain to another.

We then turn to the experimental evidence regarding the role of emotions and moral judgement in

markets and other inter-personal interactions. We find that humans seem naturally attuned to particular aspects of market interaction, and we review what limited evidence is available from economic research on preferences for process and morality more generally.

3. Social norms and domains of activity

The purpose of this section is to offer a framework to organize social norms into internally consistent sets intended to apply to a specific way of organizing human activity. Our organizing principle is the assignment of people to tasks (Fafchamps 2011, 2012). It is easy to forget that labor markets are not the only way of allocating workers to tasks. Workers can also be allocated to tasks within firms or organizations, typically through command and control. A similar process takes place within the household to assign members to specific chores, while self-employed individuals are assigned to task by market signals.

How much allocation takes place hierarchically within the firm or through the labor market ultimately depends on the duration of labor contracts. If labor contracts are of short duration, workers are allocated to tasks through the labor market: if a task must be undertaken a worker is hired to undertake it. If a task is no longer required, the worker is laid off – or simply not hired again. If labor contracts are of long duration, workers are allocated to tasks through command and control: if a task must be undertaken, a worker from within the firm is reallocated to undertake it; if a task is no longer required, the worker is reallocated to another task. The allocation role of the labor market thus depends on the duration of employment contracts.

The allocation of workers to tasks can also be organized via the market for goods and services. In the case of microenterprises employing no wage workers, job creation and firm creation coincide. It follows that self-employed workers are 'told' what to do by the demand for their products and the supply of raw materials and other inputs. Having clarified how different allocation mechanisms affect who does what, we now discuss each allocation mechanisms more in detail.

3.1. Self-provision, markets, and hierarchies

Many goods and services are self-provided within the household (Becker 1965). This is particularly true in poor rural areas where households self-provide a large number of essential commodities. Within the household, the allocation of workers to tasks is based on gift exchange or reciprocal exchange between related individuals. Risk sharing is the manifestation of reciprocal exchange that has received the most attention from economists (Coate and Ravallion 1993, Ligon, Thomas and Worrall 2001). Other examples include the exchange of favors (Jackson, Rodriguez-Barraquer, and Tan 2010) and the pooling of land within the lineage (Platteau 2010, Otsuka and Quisumbing, 2001).

Within the domain of self-provision, the allocation of workers to tasks is achieved through a combination of intra-household bargaining and social norms. A large literature has looked at the distribution of welfare within households and has identified various determinants of intra-household bargaining (McElroy and Horney 1981; Lundberg and Pollak 1993).

Because the formation of a new household marks the creation of a new production unit, the efficient allocation of workers to tasks therefore depends on how individuals are matched into households (e.g., Fafchamps and Quisumbing 2008). This formation process is largely regulated by the marriage market. The assortative matching of spouses on ethnicity, religion, education, and family background affects not only the inter-generational transmission of skills and wealth but also the productivity of the newly created households in the self-provision of goods and services (e.g., Fafchamps and Quisumbing 2002, 2005a, 2005b). This is well understood by parents who often get involved in the selection of a mate.

The social norms associated with self-provision are specific to that domain of human activity. People are assigned to tasks within household, either through direct negotiation or, more often than not, by following socially assigned roles (e.g., Fafchamps and Quisumbing 2003, Fafchamps and Wahba 2006). Reciprocity is undefined ex ante. The reward for performing a task is unspecified (i.e. there is not wage or price); it is typically delayed in time; and it is contingent on future shocks. This system allows sharing and redistribution: it is ideal to help the weak, nurture children, and care for less able household members. Decision making is typically decentralized to the person performing the task, possibly in consultation with others. How much decentralization is possible depends on technology – for instance, the plow favors

a more centralized form of farm management, thereby eroding the decision making power of women (e.g., Alesina et al. 2013). Social norms are enforced in part through the internalization of norms through upbringing, and through various forms of social pressure (e.g., ostracism, ridicule, bullying, domestic violence, expulsion, honor killing). Formal contracts can also play a role (e.g., marriage), as well as externally imposed legal obligations (e.g., child support). Evidence nonetheless suggests that, in many developing countries, the formal legal system has only limited effect on the enforcement of social norms in this domain: customary laws or traditions are often followed even when they violate formal or religious law; participants are reluctant to report norm violations to formal institutions; and there is pressure on individuals not to rely on the legal system. This means that this domain often is largely beyond the reach of formal institutions.

Self-provision means that individuals are not specialized. Gains from specialization can be achieved when workers focus on a smaller range of activities at which they become proficient. But for this to be possible, they must provide the good or service not just within the household but to a larger number of people. This essentially means offering these goods and services through the market, typically in or around an urban center (e.g., Fafchamps and Shilpi 2003, 2005). This process manifests itself as the creation of a myriad of micro-enterprises, often known as the 'informal sector'.

What matters for our purpose is that the social norms required for success as a micro-entrepreneur are not the same as those governing self-provision (Fafchamps 2011). In market exchange, reciprocity in the form of payment is often immediate rather than delayed. Moreover, risk sharing (e.g., insurance) is separated from compensation for effort (e.g., price). This stands in contrast with gift exchange within the household or extended family, where reciprocity is typically delayed and combined with insurance. This means that as they begin interacting through the market, people discover hard budget constraints, which is the way the market ensures reciprocity and compensation – but not insurance.

As firms and organizations grow, wage employment develops. By itself, it does not imply a large role for the hierarchical assignment of workers to tasks. If workers are hired for a short period, the allocation of workers to tasks takes place primarily through the labor market. Agricultural laborers, for instance, are often are hired by the day or the task.

Large hierarchies cannot function solely with casual labor, however. Size makes it difficult if not impossible for decisions to all be made centrally: the delegation of authority is essential to deal with local problem solving. Delegation of authority to sub-units in turn creates a need to coordinate the activities of the various parts of the organization (e.g., Fafchamps and Soderbom 2006). This coordination cannot be accomplished without trusted management and clerical personnel to process information, e.g., via accounts or reports. This leads to the development of so called 'permanent' employment contracts. In developed economies these are so pervasive that they are regarded as normal employment.

Workers in permanent employment may be granted a certain amount of autonomy but, ultimately, what task they are assigned to is dictated by what fits the needs of the organization they work for. Given this, workers are expected to comply with their task assignment. Reciprocity is defined ex ante, through the payment of a pre-specified wage at regular intervals. Promotion is based on tenure or past performance. In principle, a permanent employment contract involves no sharing or redistribution other than what is stipulated in the contract: there is no ex post insurance and no consideration for individual circumstances. Roles are defined by the contract or the employer, and so is the level of decision making devolved to the individual worker – usually in ways strongly influenced by the technology of production. Respect of these norms of behavior is enforced by a combination of loyalty to the employer or firm, guilt for shirking, social pressure from coworkers, harassment by management, threat of loss of job, and threat of loss of reputation. There is extensive intervention of the legal system to affect the operation of the assignment process. Interventions are often based on a quid pro quo: more worker loyalty (e.g., no strike) in exchange for better conditions (e.g., wage, health and safety, social insurance, worker autonomy, promotion rules).

3.2. Domain coexistence and shifting boundaries

We have seen that different domains of human activity call for social norms with a different content. Yet most individuals operate in multiple domains at the same time. They typically share a household with others, and the life of this household is regulated by self-provision and gift exchange. In addition, they earn a monetary income either from the operation of a farm or small business, or from wage employment – or both. This means that most individuals juggle multiple sets of social norms that apply to different

aspects of their economic life. At home they are expected to contribute to household public goods without consideration for immediate reciprocity – i.e., to devote time and resources helping others in a relatively non-strategic manner. But in their business they are expected to insist on unconditional and timely reciprocity in the form of payment, work or supplies. In their business individuals are expected to take initiative and avail themselves of arbitrage opportunities. But in wage employment they are typically expected to stick to their assigned task and refrain from deriving personal gain from arbitrage opportunities.

Many cases of breach of contract are related in one way or another to the application of social norms from another domain. An entrepreneur may fail to pay suppliers because enterprise funds were diverted to deal with a family emergency. A workers may fail to report for work because she is taking care of a sick relative. Alternatively, individuals may seek to apply norms from the market realm to transactions normally regulated by the family and handled through gift exchange – e.g., sexual favors. Corrupt workers are those who apply norms from the entrepreneurship domain and take advantage of arbitrage. Alternatively, small entrepreneurs may cluster together, mimic the behavior of each other, and show no initiative at all – as if they were in casual wage employment together. As these examples illustrate, juggling different sets of social norms is fraught with difficulty (e.g., Barr and Serra 2008).

This inherent difficult is further compounded by the fact that domain boundaries are not constant. The boundaries between the domains of application of the different labor allocation mechanisms tend to shift with economic development. As a result the allocative role of the market changes constantly, on one hand taking over tasks that were previously the realm of self-provision and gift exchange, but on the other hand seeing its allocative rule superseded by command and control within expanding organizations. The domains never disappear – even in the most market-oriented economics, there are still goods and services that are self-provided – but their range of applicability changes over time.

With economic development, individuals learn to rely on the market to obtain goods and services they previously obtained through gift exchange or self-provision. Tasks thus move from one domain, with its rules and obligations, to another domain and another set of rules. Negotiating these changes can be confusing for those involved because to each allocation mechanism is associated a specific set of internally

consistent norms and attitudes. For tasks assigned through self-provision and gift exchange, allocation is ultimately based on reciprocity: I help you today because I expect you to help me in a yet-to-be-defined way later. There is no hard budget constraint, which facilitates risk sharing and redistribution – the needy do not 'pay' for the services they require. The kind of social norms that sustain household self-provision and gift-exchange nevertheless emphasize the obligation to reciprocate for gifts received, if one is in a position to do so. Self-provision and gift exchange leave much room for altruism and emotions to shape exchange – and thus the assignment of tasks among individuals. Self-provision also encompasses a hierarchical element, with the head of household playing a role similar to that of firm manager, albeit on a smaller scale and with no power to hire or fire workers.

In contrast, market allocation is based on clear – and often instantaneous – reciprocation in the form of money. This leaves little room for risk sharing and no room for redistribution: money is required to obtain goods and services. Although individuals procure goods and services to each other as they would in a gift exchange economy, the workings of the market does not require moral obligations extending beyond the instantaneous transaction, and the role of altruism is minimized.

In market exchange, hard budget constraints serve as an obstacle to free-riding: individuals cannot consume if they do not contribute to society something that is valuable and worth paying for. In gift exchange, there is no such hard budget constraint so that in principle some people can receive without giving in return. Preventing free riding is thus more difficult in gift exchange.

Two types of norms can be seen as a way of minimizing free riding. The first is the moral obligation to reciprocate in one can. This has already been discussed. The second is a sharing norm, or equity norm. This basically requires that standards of living remain basically in line with each other: one person cannot rise above all others; if someone has good fortune, he/she is expected to share this good fortune with others so as to raise the standards of living of the group as a whole. Equity norms of this kind limit free riding: it is not possible to only take from the group without giving in return. But they do so in a redistributive fashion, i.e., they show no apparent concern for possible discrepancies between someone's standard of living and their economic contribution to society. This is in sharp contrast with the hard budget constraint imposed by the market, which establishes a clear link – i.e., monetary income

– between consumption and contribution to society.

The shift from market provision to wage employment calls for another change in norms and attitudes. For people to be efficiently assigned to tasks by the market, they must respond rapidly to arbitrage opportunities. Swift action is needed before the opportunity is seized by someone else. In contrast, workers in long-term employment are expected to perform their assigned tasks; they are not expected to set their own tasks in response to arbitrage opportunities. If they do, this is often described as corruption. Hence corruption is equivalent to applying norms from one domain, the market domain, to another domain, the wage employment domain. Nepotism is another form of confusion between the norms applying to different domains: in the realm of gift-exchange, reciprocating favors is a social obligation; in wage employment, diverting from one's assigned task to reciprocate favors violates the employment contract.

There can also be cross-subsidization across domains. For instance, a paternalistic employer may act in fatherly way towards his employees, but expect filial loyalty in return. The putting-out system enables employers to surreptitiously employ unpaid family members whose labor force is under the control of the worker. Unpaid family workers similar provide an artificial boost to the productivity of small businesses. Employers may also pay their workers on commission, thereby introducing an element of self-employment into their labor contract. In all these examples, one domain is seen taking advantage of the social norms applying to another domain.

There is therefore a lot of potential for clashes between the norms applying to different domains. As societies develop and move away from self-subsistence, people have to learn not one but two sets of different norms, one regulating interactions through the market, and another regulating hierarchies. It is therefore hardly surprising that the development process is often associated with confusion of norms. Not only do people have to learn new social norms, they also must learn which norms apply when in an environment that is perpetually changing, role models are few, and norms from one domain leak into another domain or be taken advantage of.

4. Behavioral considerations

We have contrasted different types of mechanisms that help enforce market transactions and, more generally, norms of behavior in various domains of economic activity. Norms of behavior in contractual and non-contractual relations of exchange are enforced partly through formal institutions – e.g., courts, contract law, marriage law, labor law, corporate law – and partly through informal means – intrinsic motivations/internalized norms, loss of valuable relationships, loss of reputation, social pressure, illegitimate violence. I have argued in Section 2 that the respect and violation of social norms trigger a wide range of human emotions, many of which are hard to control or suppress – and thus are not fully rational. Although many of these emotions – e.g., anger at being cheated – serve a de facto deterrence role, they often are not consciously strategic, especially when, as in the case of guilt and shame, they act as deterrent on the breaching party.

Human emotions are generated through physiological processes (e.g., hormones, reflexes) that are common to all mankind, even if they sometimes vary by gender (e.g., Croson and Gneezy 2009). Furthermore, many of them – e.g., fear, anger, lust, greed – are fairly primal and involve primitive regions of the brain. We can therefore expect emotions to be widely shared by all members of the human specie. This also applies to the emotions most closely associated with our capacity for moral behavior – e.g., guilt, shame, self-righteousness, moral outrage. However, while the emotions triggered by norm violation are widely shared among humans, the *content* of the norms that trigger them does differ.

It is widely believed that humans internalize social norms primarily through upbringing while young (Platteau 1994a), although new norms can be internalized and old norms abandoned throughout adulthood. This makes the human mind at the same time extremely adept at making moralistic value judgement, but at the same time surprisingly malleable regarding the content of the norms. Anthropologists have documented a number of empirical regularities – all human societies seem to have moral rules regarding incest, homicide, sexual practices, and food. But these rules are astonishingly varied, especially among human groups whose geographic and social isolation helped preserve their original values – the so-called 'primitive' people (e.g., Levi-Strauss 1962, 1966). Social norms also appear capable of varying over a surprisingly short time – and, as we have discussed in Section 3, conflicting norms manage to

coexist within the same individual at the same point in time.

Taking these observations as starting point, in this Section we examine how behavioral considerations affect our understanding of breach deterrence and markets in general, and how they relate to norms and morality more generally.

So far we have assumed that breach deterrence is achieved by creating a total punishment for breach that yields lower utility than breaching one's contractual or social obligations, and by assuming that people respond rationally to that. This reasoning is based purely on own outcomes: agents compare the outcomes of breaching and not breaching and pick the outcome that best serves their material interest. There is no consideration for behavioral deviations, including deviations that are triggered by preferences over process, of which morality is a major source.

We begin by discussing the role of altruism and rivalry in the functioning of competition. We then turn to the relationship between markets and mate selection. Next we discuss risk avoidance behavior and how it relates to breach deterrence. We then formally introduce preferences over process, and examine the relationship between conditionality and punishment. This leads us to examine the role of individualism and agency. Applications to the violation of norms and contracts are presented at the end.

4.1. Comparisons and competition

Competition is often seen as a hallmark of markets. But competition seems to be fueled by a much more fundamental human urge than anything unleashed by markets. People compare themselves to others when evaluating their life achievements, and this can affect how happy they feel (e.g., Diener et al. 1995, 1999, Kahneman et al. 1999, Layard 2002, Frey and Stutzer 2002, Blanchflower and Oswald 2004, Luttmer 2005). This explains why happiness is largely insensitive to aggregate growth (e.g., Esterlin 1974, 1995, 2001, Krueger 2009) but may vary across cultures or over time (e.g., Runciman 1966, Inglehart et al 2000).

Interpersonnal comparison breeds rivalry, a feature that has been abundantly discussed following the seminal work of Fehr and Schmidt (1999) on inequality aversion (see also Rabin 1993). As shown by Fafchamps and Shilpi (2008), the sensitivity of subjective well-being to the material welfare of others is not limited to urban, market-oriented environments: it is even stronger in isolated areas (see however

Ravallion and Lokshin 2005). People do behave altruistically at times, but they do so primarily within the family (e.g. Cox 1987, Ledyard et al. 1995, Hoffman et al. 1996). This may explain why, when they form social attachments, people tend to seek out the company of similar others (e.g., McPherson et al. 2001).

Interpersonal comparisons can also affect savings and consumption choices. The idea of conspicuous consumption, first put forth by Veblern (1899), has found some evidential support in recent papers (e.g., Roth 2014, Bursztyn et al. 2016). The related idea that people overspend in order to keep up with their neighbors (Duesenbery 1949) has similarly received a recent revisitation (e.g., Di Giorgi et a. 2016). Robson (1992) argues that status considerations affects attitudes to risk. Evidence that people are sensitive to relative status is given by Di Tella et al. (2010).

Competition thus appears to be a natural human behavior, fueled no doubt by the pursuit of self-interest, but also by rivalry based on interpersonal comparisons – even in the absence of material gain (e.g., Curtis and Eswaran 2003). As a result, competition can be harnessed in various types of human interactions, not only through the market. Sibling rivalry is one possible manifestation of competition in the self-provision domain (e.g., Morduch 2000, Leight 2016). Competition in teams has been studied in the context of hierarchical organizations, and there has been considerable theoretical work by economists on competition in teams. Market competition itself has received much attention, and we need not revisit it here.

While competition may often yield an efficient outcome when it is based on pure self-interest in material outcomes, rivalry may generate excess competition whereby agents prefer to destroy each others' material payoff to avoid falling behind (e.g., Macours 2011). Direct evidence can be found in laboratory experiments that give subjects the option to pay in order to destroy (i.e., 'burn') the payoff of other subjects. Thankfully most subjects do not make use of this option, but a significant minority does (e.g., Zizzo 2003, Zizzo and Oswald 2001). Furthermore, Fafchamps and Hill (2015) provide experimental evidence from three countries demonstrating that subjects are less likely to join a Pareto-improving team when the option to destroy other subjects' payoff is introduced – and this effect is particularly strong in rural Uganda. Excessive competition has also been documented in auction experiments, where it is

known as the 'winner's curse'. Perhaps the best evidence of this is for second-price auctions for which, under pure self-interest, bidding one's reservation price is optimal – yet many subjects bid more than that, and end up losing money when they win the auction (e.g., Kagel and Levin 1986).

The observation that competition can be destructive has long been made in history – and is even recorded in the Book of Genesis with the story of Cain and Abel. This probably explains why there are more institutions – formal and informal – to reduce competition than there are to encourage it. Family authorities are called in to arbitrate disputes between siblings or heirs. Customary and tribal authorities are primarily in charge of adjudicating competition between households or lineages over land and other productive assets, and to ensure that rivalry does not break out into tribal warfare (e.g., Scott 1976, Schechter 2007). It has even been argued that a crowning achievement of the modern state has been to reduce the mayhem and wanton destruction of lives and property brought about by competition between groups (e.g., Pinker 2012). Competition for resources is also behind cattle theft and land grabbing (e.g., Andre et al. 1998), and many customary and formal institutions exist with the main purpose of ensuring the respect of property rights against the envy and lust for destruction associated with human rivalry.

So far we have emphasized the dark side of other-regarding preferences, namely, rivalry. There is also a bright side, namely, empathy, compassion, and altruism. The fact that people care about others and derive some satisfaction from their well-being is most clearly visible in the self-provision domain. Shared genes and experiences are known to favor group identification and altruism, and these emotions probably are an essential binding agent in nuclear and extended families, helping to sustain gift exchange over long periods of time. It nonetheless remains that social norms in the self-provision domain strongly emphasize the need to share and help others – suggesting that altruism based on shared genes need not be sufficient.

In the market domain, economists typically assume indifference to the material well-being of others. This point is discussed for instance by Bowles (1998) who reflects on the often-heard claim that 'markets make people selfish' (see also Arrow et al. 2000 and Bowles et al. 2001). Some evidence on this issue is provided by Belot and Fafchamps (2015). The authors design a dictator-style experiment in which subjects choose between two payoff allocations between themselves and three others. By varying the framing of the game either as a joint allocation decision or a market-like partner selection decision, they

find less evidence of altruism – but more evidence of rivalry – in the partner selection frame than in the joint allocation frame. This evidence provides some support to the idea that norms vary across domains and framing affects the choice of norms that people use when deciding what action to take.

How do these observations apply to the hierarchical domain? If workers were truly indifferent to each others' payoff, we would expect piece-rate wage employment to dominate in many if not most activities, based on observable effort. This is, however, not what is observed. Recent experimental evidence from India shows that performance-based pay and the associated inequality in material outcomes tends to disincentivize low productivity workers without providing additional incentives for high productivity ones (Breza et al. 2016). It is also possible to interpret one of the key findings of Bandiera et al. (1999) in the same light: when working side by side in a piece-rate working environment, friends change their relative productivity so as to reduce the disparity in their material payoff. It therefore appears that incentive pay and its associated inequality in material outcomes has a potentially deleterious effect on job performance, a point captured by the inequality aversion hypothesis of Fehr and Schmidt (1999). Recent evidence also suggest that countries differ in the extent of the variation in performance pay that they deem acceptable – see Ockenfels et al (2010) for a comparison of US and German compensation schemes in the same multinational corporations (see also Bolton and Ockenfels 2000). In practice, hierarchies often promote cooperation instead of competition between workers, especially when the performance of the team depends critically on cooperation, such as in military units, for instance. As as result of a combination of a need to foster cooperation to sustain team work, and a resistance to performance pay and the ensuing wage inequality, many hierarchies opt for a relatively flat pay schedule either unconditional on performance or with performance rewards that are far from commensurate with productivity differences between workers.

4.2. Mate selection, markets and teams

Experimental evidence suggests that for many moderately complicated games, people make systematic mistakes relative to predictions from standard economic models (e.g., Kahneman 2011). Yet there is one moderately complicated game in which they do surprisingly well, even with little or no prior experience – namely, convergence to a single market price for an homogeneous good with different valuations across players. Such games were first played by Vernon Smith in the 1950's as part of his teaching of economics

to US undergrads. He found that, with very little guidance or framing, students were able to quickly and consistently converge to the competitive supply-equal-demand equilibrium price, and did achieve very high efficiency levels. These findings and were subsequently confirmed in a more formal experimental setting (Smith 1962). More recently (e.g., Bulte et al. 2012) they have been shown to hold even in isolated parts of Africa with very little experience of markets. What this suggests is that the human mind finds competitive markets intuitively simple, and come equipped with robust heuristics on how to behave in such a setting. What is unclear from the Smith game is what these heuristics are.

One possible source insights is the hunting and gathering activities that our ancestors undertook for many generations: within the confine of the family, we share the food we have; but outside that domain, we compete for food. To illustrate this idea with a contemporary example, imagine the following situation. I am at a reception and one pie is left on the buffet. Should I take it, knowing that I have already had plenty of other food, or should I leave it for someone else who hasn't had any of that pie? Many of us would leave the last pie. Now imagine that I in line at the pastry shop. When my turn comes there is only one pie left. Should I take it, knowing that I have already bought plenty of other food, or should I leave that last pie for someone else? Most of us would simply bless our luck and purchase the pie. The effect of my choice on others is very similar, but in a market frame I am less likely to internalize the negative externality I impose on others by making a particular selection. The social norms people apply seem therefore to depend on the domain in which they operate.

This is an issue I have tried to tackle in my own experimental work. In an already cited dictator-style experiment with Belot (e.g., Belot and Fafchamps 2015) we asked subjects to chose between two payoff allocations involving four players. In one treatment the choice is presented as a choice between two allocation pies. In another treatment, it is presented as selecting a partner among two possible choices. Subjects are also told that if they select one of the available partner, the other two remaining subjects in the group will be automatically matched together. Payoff distributions under the two choices are shown in pie form and are identical to those shown in the first treatment. We also introduce a third treatment in which the link between selecting a partner and affecting others' payoff is less obvious.

We know that in settings similar to the first treatment, subjects often display a preference for equitable

distribution of material payoffs (e.g., Fehr and Schmidt 1999, Okada and Riedl 2005, Cooper and Kagel 2013). We find similar evidence. But we observe a significant reduction in altruistic choices in the partner selection treatments – and even an increase in rival choices in treatment 3. This suggests that when individuals select a partner, as they would in a market or a mate selection contest, they act more selfishly or competitively than when they select an allocation, as they would in a household or team environment. The norms that people instinctively apply thus vary depending on whether the frame is reminiscent of the self-provision domain, where sharing norms apply, or of the market domain, where self-regarding behavior is acceptable.

Why are people more competitive and selfish when they select a partner? The hypothesis I propose is that it resembles mate selection, an activity that humans and their primate ancestors have probably been practicing for millions of years. In a marriage market, the handsomest groom does not leave the handsomest bride for his ugly sibling, on the principle that his sibling deserves to be compensated for the bad luck of being ugly.

Competition for partners on the market place (e.g., for jobs, employees, suppliers, clients) is similar to competition for mates. Are people good at competing for mates? Comola and Fafchamps (2015) construct an experiment in which people compete for partners in a semi-organized fashion. The game involves many stages and the strategy set is complex – e.g., it is not possible, even for a trained economist, to work out the stable equilibrium of the game without resorting to a computer. Yet, 86% of the games converge to a stable equilibrium, and overall 93% of the formed links belong to one. This shows that subjects are naturally gifted at competing for mates in a market-like competitive setting. Hence outcomes from this decentralized, multi-stage game are very close to those predicted by Becker in the context of marriage markets and generalized as strong pairwise stability in network games. The main source of departure from stable pairings is due to a 'once bitten twice shy' effect: we refuse to pair with mates who have been disloyal to us, even if this reduces our payoff.

Rivalry may also affect willingness to form a Pareto-improving team. Once a team is formed, many opportunities arise for redistributive pressures – team members may pressurize others to redistribute some of their endowment. Fafchamps and Hill (2015) conduct an experiment in which subjects are invited to

form a Pareto-improving team. Once the team is formed, however, subjects can either steal from others (treatment 1), destroy other's payoff (treatment 2), or give to others (treatment 3). The experiment is conducted in three locations (UK, Kenya, and Uganda) using the same design and protocol. We find that stealing is fairly common in all three populations. Team formation is hindered when the destruction of endowment is feasible (treatment 2), an action that can only be explained by some form of envy or rivalry. Although African participants in the experiment act on average in a more reliable manner than UK subjects, they are much less likely to join a team in treatment 2, suggesting that rivalry is a hindrance to team formation. Kebede and Zizzo (2015) similarly report sizeable destruction of others' payoff in a sample of poor Ethiopian farmers.

4.3. Risk avoidance behavior

Let us now go back to our main topic of interest, the deterrence of opportunistic breach, which is essential for market exchange to flourish. Deterrence is about convincing people to take actions that reduce the risk that they will breach the contract. It follows that risk attitudes should affect the effectiveness of deterrence. This has long been noted in the literature on crime deterrence. Certain forms of criminality respond to material incentives – e.g., planned types of crime such as burglaries or drug trade. Other forms of criminality arise out of irrational impulses – e.g., jealousy, envy. These are less sensitive to material deterrents.

Based on this analogy, incentive mechanisms based on reason and predictable consequences may be inoperative to deter behavior based on irrational impulses, such as addiction, or on the desire to assist a close relative in need. To the extent that deterrence is effective, however, it will depend on risk preferences. There is much experimental evidence on choices among lotteries. The literature has documented widespread risk aversion, loss aversion, and probability weighting – a set of features summarized under the banner of prospect theory (e.g., Kahneman and Tversky 1979, Tversky and Kahneman 1992, Rabin 2000, Andersen et al. 2008, Andreoni and Sprenger 2011). People also seem to anchor their behavior on reference points (e.g., Camerer et al. 1997, Koszegi and Rabin 2006, 2007) and to suffer from various biases (e.g., Rabin and Thaler 2001, Croson and Sundali 2005, Kahneman 2011). This is well known and need not be discussed in detail here. But risk also generates feelings of fear and apprehension, and these

emotions need not lead to rational decisions (e.g., Loewenstein et al. 2001).

Of more interest to our purpose are situations in which people seem to misjudge or weight probabilities based on process. One issue of interest is when people underestimate the risk they incur when they undertake an action themselves (e.g., driving) but overestimate the risk they incur when someone else takes an action (e.g., taking a commercial flight). In this case, having individual control over the risk factor seems to affect how acceptable risk is (e.g., Kahneman 2011). This observation applies for instance to the safety of commercially produced food – which correspond to situations in which consumers incur risk as a result of the actions of others. In these cases, a food scare often result in costly regulation to protect consumers from the risk re-occurring. Often the risk is quite small – and in many cases undocumented by hard evidence, i.e., it could be quite remote. Yet, by supporting the introduction of costly regulation, consumers display a high willingness to pay to reduce a risk that is beyond their control, but may in fact be extremely small relative to the cost (e.g., Kahneman and Ritov 1994).

This is particularly ironic when the food scare or safety scare arises from a consumer taking improper care to ensure their safety. One example of this situation is when a well-known fast-food chain decided to stop selling hot coffee when a consumer burnt herself buying one at a drive-in. Other examples include situations when a product is pulled from the market (e.g., unpasteurized apple juice) because a parent fed this product to an infant who then got ill and died. I am not arguing that food safety or consumer safety is irrelevant, only that the total cost imposed on society by the type of health and safety regulation that arises from health scares implies a level of risk aversion that far exceeds the aversion to risk that consumers display in their own everyday actions – e.g., by smoking, drinking too much alcohol or sugary beverages, not exercising enough, having unprotected sex, driving under the influence or while distracted, engaging in a dangerous sport or hobby, etc.

I have argued that humans have a tendency to overestimate the risk imposed on ourselves by others but to underestimate the risk they represent for themselves. One striking manifestation of this tendency is demand for protection. People often take actions that induce a perception of risk reduction even though logic and evidence tell them it offers little if any protection, and may even heighten risk. For instance, some people carry a loaded gun as protection against terrorists. Yet there is little evidence that

an average person can repel a terrorist attack because they carry a firearm: most of the time terrorists catch us off guard. The same holds for most criminal attacks. The protection people seek from a loaded weapon thus seems purely symbolic, as if based on magic thinking of the kind nurtured by rumors and pseudo-science circulated on the internet. The risk, however, is well documented. Most people who die of homicide are killed in the heat of an argument with a spouse, friend or relative. Proximity to a weapon increases the likelihood that a brawl turns into homicide. Suicide attempts are also more likely to succeed with a firearm. Keeping a loaded gun is also a significant source of risk to self and loved ones, as a number of recent accidents in the US have demonstrated. People thus appear to weight the risk caused by others differently from the risk they impose on themselves.

This observation has important bearing on contracting. The borrower – or anyone who incurs a delayed contractual obligation – underestimates the risk arising from their own behavior, while the lender overestimates the risk imposed on him by the borrower. Hence the lender seeks more protection than the borrower finds necessary. One common illustration of this phenomenon is entrepreneurial finance. Aspiring entrepreneurs often are optimistic about their chance of success, even when objective statistics tell them otherwise (e.g., Kahneman 2011). It is then the job of professional lenders to identify those entrepreneurs for whom the objective chance of success exceeds the risk of non-payment (e.g., Lang and Nakamura 1990). Evidence of this can be found in a recent experiment by Augsburg et al. (2015). The authors convinced a lender to offer loans to small entrepreneurs who scored slightly below the lending cutoff. They find that, over average, the lender lost money on those borrowers, while it made a small positive profit on applicants rated above the cutoff.

Optimism about one's own capabilities – and pessimism about others' – is further compounded by regret aversion (e.g., Loomes and Sugden 1982, Gill and Prowse 2012). Making someone aware of some future risk often induces them to take costly protective action because they fear that, in the future, they will regret not having taken the action. For instance, when purchasing a small appliance, customers are often induced to purchase an expensive extended warranty. They project themselves into the future and seek to avoid that nagging 'told you so!' feeling that may haunt them, should the appliance fail. Regret aversion seems related to the kind of magical thinking we alluded to earlier: mentioning the possibility of

a future risk seems to temporarily increase demand for protection against that risk, as if the mere mention of the risk made it more likely – i.e., people behave as if they are superstitious. Having heightened risk by mentioning it, people feel compelled to increase protection because if the risk does materialize, they will feel more responsible: they were given a chance to protect themselves, they chose not to, and they only have themselves to blame for their misfortune.

What is interesting here is that culture and context can affect the kind of risks that people feel liable for, i.e., the risks that they expect to feel responsible for in the future. For instance, for a long time, smokers were told that smoking was a bad habit, but objective evidence of a health risk was missing. A smoker who got ill would have been treated with compassion by all. Now that the health risk associated with smoking has been widely publicized, a smoker is more likely to be held responsible for their ill fortune – i.e., someone is more likely to say 'I told you so, it is your fault, etc'. To illustrate how perceptions can change, we now live at a time when having a high carb/high sugar diet is beginning to be regarded as a self-imposed health risk. Obesity is seen as lack of discipline, and obese people have to fight stigma and discrimination based on being perceived as responsible for their weight. If an overweight or obese person suffers a heart attack, he or she is much likely to be on the receiving end of 'told-you-so' comments.

What these examples illustrate is that culture and context determines the that people are regarded as liable for – and for which regret aversion is likely to be strongest. If people are not held responsible for building a house on a friable cliff or on a flood plain, when disaster strikes they will be treated with sympathy by others and regret will be minimized. On the other hand, if they are regarded as partly responsible for their misfortune, sympathy will be reduced and regret heightened – thereby inducing different behavior ex ante. Because of regret aversion and the 'told you so' syndrome, willingness to pay for avoiding risk depends on social norms regarding personal responsibility. Of course, legal changes in personal liability also create a material reason for wanting to insure. But even when insurance coverage is guaranteed – as in the case of cancer or heart failure risk in modern welfare states – behavior may still be affected by regret, which is an emotion grounded in morality.

These considerations loom large on the deterrence of contractual breach. People feel responsible only for those actions that, at a particular point in time, others consider they are liable for. Contract

law exonerates parties of their contractual obligation in case of force majeure or Act of God. Natural calamities are typically given as example of Acts of God that exonerate contractual responsibility. Yet we now know that hurricanes, floods, and earthquakes occur with some regularity, and are more frequent in some places than others. Susceptibility to these natural events can be reduced in various ways – either by reducing the risk directly (e.g., construction standards, avoiding certain locations or routes) or by securing financial protection (e.g., precautionary saving, insurance). Hence what is regarded as Act of God may vary with context and circumstances. Failing to report for work because of a sick child may be acceptable in one culture but not in another. Similarly, delaying payment to suppliers because the entrepreneur has a family emergency may be normal in one culture but not in another. In some economies a buyer who fails to resell a product would not feel exonerated from the obligation to pay suppliers; in others, he would.

What the above discussion suggests is that people seem to have a moral view of risk. They expect to be held responsible for outcomes linked to actions that they see as morally reprehensible. For instance, an entrepreneur may feel that, after having been disrespectful to a supplier, they should not complain if they later find themselves unable to pay and their business goes down as a result. Taking responsibility for a risk makes people want to avoid it. In contrast, people often do not consider themselves as responsible for outcomes that cannot be linked to a morally reprehensible action on their part. For instance, an entrepreneur who borrows from the business to pay his son's hospital bill may feel entitled to delay payment to suppliers.

Economists often share the view that if only contracts could be made complete, information and enforcement problems would disappear. The general sentiment is that complete contracts are impossible because they would be too costly to stipulate and negotiate. Transactions costs are no longer the only possible explanation for incomplete contracts when people regard some risks as exonerating ex post but not ex ante. In the above example, the entrepreneur felt entitled to delay payment because his son had unanticipatedly broken a leg. But if the entrepreneur had been obliged by his suppliers to lay out all possible future contingencies, he would no longer be able to pretend that his son's broken leg was an unanticipated event and, as such, an exonerating circumstance. This explains why many legal codes

have a concept of force majeure or Act of God, and empower a third party (e.g., a judge or arbiter) to adjudicate ex post whether a particular circumstance was exonerating or not.

A corollary of the above is that how formal and informal institutions deal with excusable default affects their legitimacy in the eyes of the public. If formal legal institutions do not allow workers to skip work to look after a sick child in a country where health care is problematic, these institutions will be held in contempt – and the employers using the law to fire absent workers will be regarded as illegitimate and unworthy of workers' loyalty. Institutions that are illegitimate are not respected and their deterrence effect is lower. Since deterrence is lower, violations are more common and the likelihood of being caught or punished falls because the institution's monitoring and punishment capability is overwhelmed. Furthermore, those who are caught do not feel guilt or shame for their action and are not subject to social pressure.

4.4. Preference over process

Experimental economics has begun to document the fact that human subjects have preferences not just over final outcomes, but also over the process by which final outcomes are reached (e.g., Charness and Rabin 2002). To illustrate, consider the dictator game. In this game, individual i is endowed with an amount m and asked to share m between another subject i and himself. Many subjects share m equally, others give j somewhat less than half of m. Compare this situation to the reverse dictator game. In this game, it is j who is endowed with m and i who is asked to share m between j and himself. In this case, many subjects are reluctant to take much from j. Yet, from an economist's pesrpective, the two games should yield the same outcome if subjects only care about material payoffs. The fact that they do not indicates preference over process. Many subjects, for instance, may regard the person endowed with m as being entitled to it and thus may not regard redistributing from j's entitlement as equivalent to redistributing from their own – i.e., j may want to redistribute some of his endowment to i, but that's for j to decide, not for i.

The role of morality is to define which processes are acceptable and which are not. For instance, if I give you half my pen, it is okay for you to have it. If I do not give it to you and you take it from me, it is not okay for you to have it – it is called theft. Moral norms determine which processes for generating

outcomes are acceptable or fair, and which are not.

Economic reasoning implicitly assumes that the contractual process is morally acceptable because it rests on the mutual agreement of the two parties: if any of them does not find the contract beneficial, he or she can abstain from contracting. As a result, each contract taken in isolation must be Pareto improving for the parties. Contractual breach, on the other hand, is by definition unilateral and, typically, causes harm to the other party: had the other party known that the contract would be breached, she may not have agreed to it. In other words, breach may undo the Pareto improving character of the transaction. For this reason it is a priori undesirable.

This reasoning, however, is not shared by everyone. Many people find the contracts they enter in to be unfair and morally reprehensible: the wage they receive may be too low – relative to the wage of others, to their productivity, or to the employer's income; the price they pay may be unfair – relative to their ability to pay or relative to their need of the good or service. Similarly, the distribution of income and wealth that results from the contracts people engage in may be seen as unfair (e.g., Kahneman et al. 1986, Greif and Tadelis 2010). As discussed in Section 3, markets are not suitable mechanisms to redistribute from the rich to the poor – simply because they rest on voluntary exchange, and the rich typically do not voluntarily want to dispossess themselves of all their wealth. Markets also impose hard budget constraints on people who often are poor and faced with a lot of risk. It follows that markets often lack legitimacy, particularly in countries where self-provision still is an important allocation mechanism and where many people are imbued by gift exchange norms of behavior.

Contracts also have other features that may come into opposition with moral principles (e.g., Fehr and Falk 2002). To explain this point, it is useful to divide moral principles into categories. Many moral precepts are absolute. For instance, 'Thou shall not steal' is not conditional on others' behavior – i.e., it does not say 'Thou shall not steal from those who are kind to you'. Norms can also be conditional on others' behavior. An example of this is 'An eye for an eye'. This is conditional reciprocity: I am nice to you as long as you are nice to me (e.g., Axelrod 1984). Most incentive systems that economists study are of this kind: wage is paid after completion of the task; the good is delivered after payment is made; warranty is paid if the good is defective. There is some experimental evidence that people condition their

willingness to cooperate on what they expect others to do (e.g., Caria and Fafchamps 2014). Conditional reciprocity is typically seen as legitimate by lawyers and economists, but not always by the general public. People may feel entitled to their wage even if they did not complete the task, if completion was impeded by an event they deem exonerating. They may feel they deserve the good before (or without) payment because they need the good more than the seller needs the money. They may refuse to compensate the buyer for defective supplies if doing so would force them out of a job. People may also reject contracts ex post because the other party exploited their economic or psychological weakness – i.e., they may refuse to pay a gambling debt. In all these cases, conditionality is objected to by an absolute moral principle, something along the lines of 'Thou shall not hit a may when he is down' – which can be used by the poor to exonerate themselves from contractual obligations that turn out to be too onerous.

Moral principles can also be conditional on type. For instance, norms may dictate that men and women should be treated differently, or that the old should be treated with more respect than the young, or that certain castes or ethnic groups deserve less consideration. Discrimination of this kind is often seen as illegitimate by economists and lawyers, but not always by the general public. Here too the observations made in Section 3 help make sense of these realities. In the self-provision domain, allocation to task often follows social roles that are assigned on the basis of gender, age, and other arbitrary social groupings such as ethnicity and caste. In contrast, behavioral norms in a gift economy are absolute, e.g., women cook meals and men work fields. Concerns for reciprocation are present and important, but they not linked to any particular transaction. Reciprocation is about keeping one's role in the order of things. Norms dictate what contribution each individual is expected to make to the group. Continued membership to the group depends on continued contribution – in that sense it is conditional. But conditionality is not attached to any particular transaction or exchange. In this mental accounting framework, someone may feel entitled to continued support from the group – e.g., to receive a wage – if she has contributed to the group – e.g., by looking after a sick neighbor. Even if the neighbor and the employer are two completely different people.

Breach deterrence, being a punishment of a specific action, is conditional on behavior. The economic approach to breach deterrence is to punish breach if it is not excusable (e.g., Hart and Honoré 1985).

Like all incentive systems, it is an application of conditional reciprocity. Different societies may differ in what types of conditional reciprocity they regard as acceptable (e.g., Fehr and Goette 2007, Fehr et al. 2009, Davies and Fafchamps 2016, Della Vigna et al. 2016). Furthermore, many people do not think of contracts in terms of incentives or conditional reciprocity. For them, a contract creates an absolute moral obligation that has to be respected. In other words, the respect of the contract is an absolute imperative, like the respect of a promise. Breach of contract is the non-respect of a promise and, as such, may trigger moral outrage and result in irrational violence – e.g., insults, blows, etc. The end result of this violence is the same: it serves a deterrence role. But the emotional reaction triggered by breach, and the associated violence, are not seen as planned or anticipated, they are seen as a natural human reaction to having been wronged.

People may fear the violence brought about by outrage triggered by breach of contract, and this may deter opportunistic breach. But should the violence be planned – and advertised as such – it would probably be viewed in a very different light. Imagine that a supplier tells you: 'If you do not pay, I will get angry, and I will kill you'. This is a threat, and will be resented as such. But if it is credible it will probably have a deterrence effect. The important point, however, is that, should the supplier carry out his threat, it would constitute premeditated murder – and be punished much more harshly than uncontrollable and unplanned violence erupting after the fact, which would probably qualify as manslaughter. What this example illustrates is that, from a moral and even legal point of view, premeditated harm is regarded more negatively, especially if it is materialized by threats, even if it is triggered by a particular action of the victim. To illustrate, imagine a husband who tells his wife 'If I find you again with the neighbor, I will kill you'. Clearly the threat is ushered to deter behavior, but it would still constitute premeditated murder.

What these examples demonstrate is that premeditated punishment is seen as less morally acceptable than punishment triggered by anger and outrage. This is problematic for optimal deterrence because, in order for a punishment to have a deterrence effect, it must be predictable with high certainty. Yet announcing up front exactly what punishment will be imposed may weaken the moral legitimacy of the punishment – and thus make it less credible. It follows that it may be optimal for parties to keep the

form of punishment unspecified, keeping all their options open in ex post negotiations, including various types of posturing, such as getting angry, or faking it.

By now, it should become clear that moral judgment, and the many emotions associated with it, need not follow logic (e.g., Sunstein et al. 2002, Sunstein 2005). This point has been demonstrated most clearly by the trolley experiment. In this experiment, the subject is asked to choose between two possible outcomes: the death of four people, or the death of just one. Given this choice, nearly everyone prefers the latter. The same choice is then presented using the following parable. Imagine that a runaway trolley threatens to kill four people, but you can divert it so that it will kill only one. Do you want to activate the switch that will divert the trolley? Most people choose to do nothing. The accepted interpretation – confirmed by other experiments (e.g., Greene 2010, 2012) – is that people do not want to have anything to do with the death of a person. Some have gone as far as claiming that the rules of morality are more akin to those of syntax than those of logic – and that they involve similar or neighboring regions of the brain (e.g., Mikhail 2011). Belot and Fafchamps (2015) find experimental results that are consistent with this interpretation, although much more work is necessary before coming to a definitive conclusion. Di Tella at al. (2015) find evidence suggesting that people conveniently change their beliefs of others' altruism to justify their own antagonism (see also Null 2011).

What is clear, however, is that people have preferences over process: they do not care only about material outcomes, they also care about the process by which outcomes are achieve. Economic reasoning compares outcomes. Welfare analysis, for instance, has as starting point individual utility defined over outcomes. The nature of the process by which these outcomes are achieved is deemed irrelevant – and attempts to debate policies on the basis of values or principles is often viewed by economists as pretense, that is, as a way of hiding one's 'true' motivations, which can only be about material outcomes. Put differently, many economists see efforts to discuss policies on the basis of anything other than final material outcomes as little more than a ploy to divert attention from true motives and a way to fool the public. The truth is that these efforts are made because the public also cares about values and principles, and these values and principles color the way it sees the process by which a particular policy outcome is achieved.

These observations apply to markets as well. Since markets and incentives are the process by which efficient outcomes are reached, they are implicitly seen as legitimate by economists. Efficiency, of course, is a judgement based solely on material outcomes. To those who also care about process, efficiency is not the sole consideration. To them, the market process need not be seen as legitimate, even when exchange is voluntary. There are many examples of this: the market for sexual favors, illegal drugs, or gambling; the sale of human organs; indenture contracts and the use of bonded labor as collateral; children and women working in coal mines; dangerous and unhealthy wage work; or women working outside of the home. In all these examples, market exchange is or has been legal in some place and time – with frequent legal reversals over time, and exceptions within countries for certain markets or regions. For instance, many forms of dangerous employment are banned and indenture contracts are illegal in many developed economies, but exceptions are made for the military. The point here is that each of these examples triggers strong emotions in most people and are occasions for endless debate. This alone implies that most people care about process, and market exchange is not always seen as a legitimate process to determine certain outcomes.

Preferences over process also apply to particular practices or incentive structures. Anderson and Simester (2010), for instance, show that consumers are antagonized by illegitimate price changes.

4.5. Individualism and demand for agency

Economists take it as starting point that decisions are made by individuals, which justifies using individual utility as the yardstick by which policies and institutions are judged (e.g., Luce 1959, 2010). Perhaps the clearest illustration of this approach is in the literature on intra-household allocation. The household is seen and modeled as a bargaining nexus in which different individuals seek to promote their own utility – possibly augmented to include altruistic or patronizing motives (e.g., Becker 1981). The maintained assumption is that individuals demand agency so as to be able to pursue their own choices. This, for economists, typically means accessing an independent source of income and controlling household expenditures.

This approach to intra-household allocation is in sync with the empowerment agenda, with which it shares an individualistic approach to human welfare and a focus on material outcomes. The two

nonetheless differ on the role of process. Economists typically view intra-household allocation from the dual vantage point of efficiency, and equity in the allocation of material consumption (e.g., Becker 1973, 1981). Non-economists working on these issues are more interested in the process by which household decisions are made, hence the focus on empowerment, namely: the ability of women to resist decisions imposed upon them by their husband or society at large; and their ability to make their own choices. The first idea refers to the concept of *power* as defined by Dahl (1957), that is, as the capability that someone has to impose their own choices on someone else. Empowerment is first about changing that for women. The second idea relates to the concept of agency as discussed by Sen, that is, someone's ability to make their own choices (e.g., Afzal et al. 2016).

Behind the apparent simplicity of these concepts lurks an extremely intricate set of issues, which I do not have time to cover in any detail. To illustrate, one distinction that comes to the fore is the distinction between different types of agency: e.g., executive or consultative; complete or partial; positive or negative (veto). Agency is also affected by the process by which collective decisions are taken: is a vote taken; what kind of voting rule is applied; what kind of majority is required for a decision to be accepted; for a decision to rescinded; what recourse are available for those who vested interests are threatened. These issues have been the object of much study among economists interested in industrial organizations and mechanism design, but also among political scientists interested in democracy and political processes in general. The same issues arise in many domains of legal study, such as constitutional law, corporate law, and patrimonial law, as well as laws and regulations regarding court proceedings. The bottom line is that there already exists a considerable body of scholarship on issues of process, including a lot of careful thought given to identifying procedural rules that yield equitable and efficient outcomes. Anyone interested in venturing into this area of enquiry is well advised to avail themselves of the existing literature.

Like economists, the empowerment literature assumes that all individuals demand agency. Since agency is seen as a right, this assumption is never tested or challenged. This has several practical implications. First, it entails that people who do not exercise agency are probably oppressed, in the sense that their desire to express agency must be repressed by force or social pressure, otherwise they would naturally express their desire for agency. If this is true, removing oppression should automatically result

in a situation in which all individuals exert agency. If this fails to happen, an alternative explanation has to be found, that is, a more insidious form of oppression must be present that does not rely on explicit deterrence. One possibility is that the oppressed have internalized the norms and preferences of their oppressors, i.e., they have been indoctrinated. In this case, granting them agency will not change the nature of the choices that are made: the formally oppressed have internalized that the choices made for them by society are the correct ones. Another possibility is that they lack aspirations or self-respect, and hence either do not in fact wish to exert agency over certain (or all) choices, or they do not believe that certain choices are relevant for them (e.g., Lopes and Oden 1999, Genicot and Ray 2010). In the words of Karl Marx, they have been alienated.

While freedom from oppression fits well with economists' conviction that freedom of exchange leads to mutually beneficial trade and thus higher efficiency, concepts of indoctrination and alienation are hard to reconcile with that of a stable utility function. If individual preferences are malleable, this threatens to undermine the very foundations of welfare analysis, which is the cornerstone of much of economics. Furthermore, it opens up an alternative road into policy, namely, interventions to mold people's preferences so as to match a higher philosophical or moral order. Many development interventions conducted by NGOs are of this nature: they aim to 'educate' and 'raise awareness' rather than offering people with new options for increasing their material welfare.

These interventions, however, remain predicated on the idea that individuals have preferences and are keen to make individual choices based on these preferences. The alternative is decision by consensus. The need for consensus would naturally arise if individuals do not believe they can reach an optimal decision alone. They need the advice of others to make a choice, and thus refrain from making an individual choice. The group has to be involved in their decision making. This logic can apply within households, or within larger groups such as a kin group, tribe, or religious community.

When collective decision making is the norm, individual deviations may trigger disapproval, ridicule, or ostracism. As a result individuals may refrain from making unusual decisions, such as adopting a new crop or consumer product without first seeking others' approval (e.g., Young and Burke 2001, Zafar 2011). The need for social approval seems to be present in many human endeavors, and has been extensively

studied in the economic literature on peer effects. Not all peer effects relate to conformism, imitation or mimicry – some are about information transmission or network externalities. But many aspects of human behavior studied in the peer effect literature are implicitly or explicitly about social reinforcement – e.g., smoking, petty crime, sexual activity, contraception usage, technology adoption, voting, just to name a few (e.g., Kawaguchi 2004, Lundborg 2006, Powell et al. 2005).

Collective decision making has several advantages: it pools information and insights from multiple individuals; it economizes on individual decision making – people only have to copy others; it protects less able individuals from making poor decisions; and it provides side benefits such as group identity and a sense of moral vindication of my actions by others. It also has numerous drawbacks: it is complicated to set in motion and thus is slow to respond to new opportunities; it stifles the initiative of creative members of the group; and it often subjects individuals to sustained and overwhelming social pressure (e.g., Hoff and Sen 2006). For these reasons, it is best suited for societies facing a stable environment. It is ill adapted to the market domain and, as a result, tends to become dysfunctional following the onset of the entrepreneurship revolution, that is, the replacement of self-provision by market provision that arises with urbanization. But it may survive in rural areas, and it may even continue to dominate self-provision long after the introduction of market specialization (e.g., Goldstein and Udry 2008, Goldberg 2010). It also may cement group identity among wage workers in large mines or factories, or among masters and apprentices in guilds. The self-help groups promoted in many developing countries are distant contemporary manifestation of the same idea (e.g., Fafchamps and La Ferrara 2012).

An additional upside of replacing individual agency with collective decision making is collective responsibility: people are not alone facing disapproval for their actions, others share the responsibility with them. By extension, they also incur punishment together (e.g., Greif 2002, Greif and Tabellini 2010, 2012). There are many remaining examples of collective responsibility in contemporary institutions. Arguably the most common is the community regime, according to which the adult members of a household are collectively liable for all the debts incurred by their members. This means that a husband is liable for his wife's debts, and vice versa. Collective responsibility is ultimately predicated on the idea that spouses decide in common. They may not always keep each other informed of their everyday decisions,

but they are presumed to have agreed on a common course of action. The alternative is for spouses to keep separate finances, a practice that is found in a few societies (e.g., coastal West Africa) but is rare in human societies that have historically practiced plow agriculture (e.g., Alesina et al. 2013). Other examples include business partners, who are collectively liable for all the debts of the enterprise. Citizens of a country are similarly collectively liable for all external debts of the country.

Whenever collective responsibility is the rule, individual punishment based on a mutually agreed contract can be seen as illegitimate. The reason is that individuals are not allowed to engage the collective responsibility of the group without getting the group's approval. The logic of this approach is easily illustrated with a contemporary example involving a teenager. Imagine a fifteen year old buys a new expensive car. Since the child is a minor, parents are automatically liable for the contract. Given the impressionable nature of teenagers, society does not fully trust them with making financial decisions of this magnitude. This is why contracts signed by teenagers are regarded as legally invalid unless approved by the parents. This prevents car dealers (and others) from conning teenagers into incurring large contractual obligations.

This collective responsibility logic is often applied to transactions incurred by adult dependents of the household who are regarded as subordinate – i.e., they are assimilated to a minor. In many developing countries today – as in currently developed countries a couple centuries ago – married women (and other adult dependents) have the same status as a teenager today: they are not allowed to enter into a contract without the approval of the household head (e.g., Afzal et al. 2016). This means that contracts agreed with someone's wife can be challenged ex post by their husband. In other words, anyone who contracts with a married woman is taking the risk that the contract will be subsequently challenged. Needless to say, this makes it difficult for a woman to, say, borrow from the bank. The success of micro-finance organizations targeting women in South Asia and, increasingly, in Africa may be closely linked to this reality.

Other collective challenges of individual contracts can often be understood as manifestation of collective responsibility. For example, farmers may collectively rebel if a bank threatens to foreclose on the land belonging to one of them. Members of a group may similarly riot following the expulsion of one of

their members by a landlord. Some strikes, e.g., following the firing of a worker, can be seen in a similar light, as an action directed to an individual when the group considers itself collectively responsible for the fired worker.

5. Discussion

The objective of this paper is to offer a broad conceptual framework within which the role of formal market institutions is better understood. The starting point of our approach has been that market transactions embedded in a social context. This includes not just networks, but also social norms, emotions, and thought processes. From this starting point, we have sought to draw lessons regarding the interface between formal institutions (e.g., laws, courts, contracts) and informal institutions.

5.1. Summary

We started with an overview of various breach deterrence mechanisms, many of which are often dubbed informal. We saw that there are many enforcement mechanisms other than courts. We also noted that, although breach deterrence seldom rests on direct enforcement by courts, many laws and formal institutions actually seek to reinforce and improve informal enforcement mechanisms rather than enforcing contracts directly. Formal and informal breach deterrence thus work in tandem, one reinforcing the other.

In the next Section, we focused on the content of social norms and we discussed the relationship between norms and assignment to tasks. I argued that there are three main institutional forms of assignment to task: self-provision, markets, and hierarchical assignment. Each has its domain of application and a different set of social norms.

The process of development induces many changes in the coverage of the three domains. This in turn requires changes in the respective importance of norm types. In particular, the self-provision domain must adapt, although it is clear to what. One possible direction is to encourage entrepreneurship and foster norms favoring arbitrage and initiative – i.e., the seizing of opportunities. Another possible direction is to prepare individuals for wage employment by encouraging discipline and team work and discouraging opportunistic behavior. Since the two directions call for largely antagonistic changes in social norms,

confusion across domains during the process of development results in pathologies such as corruption, nepotism, and employer paternalism.

Having laid the stage for a study of the interface between formal and informal market institutions, we turned to behavioral considerations, drawing largely on the experimental economics literature but also seeking insights and inspiration from other disciplines. We started with a discussion of the close correspondence between market competition and human rivalry. We also noted the similarity between mate selection and the matching processes taking place in markets. These similarities probably explain why, even with little prior experience, humans are strikingly adept at adopting apparently rational behavior in markets, especially regarding understanding prices and competing for market partners.[1]

We then reviewed the more recent evidence on risk avoidance behavior, noting that people's attitude to risk seem to depend on the nature of the risk. For instance, people are more averse to risk imposed by the behavior of others, but less averse to risk generated by their own behavior. One possible explanation is that they are overly optimistic about their own self-control. Another is that people are more willing to accept unfortunate outcomes when they are their own fault. We also discussed regret aversion, a phenomenon suggesting that people do not like to be blamed – or to blame themselves – for bad outcomes. We call this the 'told-you-so' syndrome whereby people seek the avoid the guilt associated with a bad action. In other words, the process by which risk arises seems to matter, not just the nature of the risk itself.

We then turn to conditional norms and morality. We first note that many moral precepts are unconditional, i.e., they do not depend on others' actions. This stands in contrast with contractual incentives which always rest on conditional cooperation. We observed that moral behavior involves many different emotions, and cannot be relied on to be rational. There is growing evidence that people care deeply about the process by which outcomes are reached, and do so in ways that are related to their moral sense. This can generate situations that are a priori strange from the point of view of optimal deterrence, such as when anger driven by moral outrage at a breach of contract is deemed acceptable, but not pointing

[1]This apparent rationality is surprising given that human subjects are not as good at working out relatively simple strategic games, such as second price auctions. There is also mounting evidence that less educated individuals who are less familiar with markets and strategic games do less well in laboratory experiments involving strategic games than college students from developing countries.

out that such anger is likely to arise in the future, should the other party not comply with contractual obligations. This features makes the negotiation of complete contracts fraught with difficulties because of the emotions the process triggers.

We ended with a discussion of collective responsibility and individual agency. We observed that the empowerment literature, like economics, takes individual agency as a right and assumes that people want agency. This literature nonetheless differs from economics in that it recognizes that preference for agency may be malleable. This position leads to contradictions that we did not seek to dispel. Finally, we discussed the logic behind collective decision making and its corollary, collective responsibility or liability. We provided examples from different cultural environments to illustrate the nature of the process, and how it can come into conflict with the logic of the market and individual decision making.

5.2. What lessons can we draw from this overview?

The first lesson is the importance of the family. The first normative layer of human societies is probably the family or kinship group. It corresponds to the domain of self-provision and probably has a long evolutionary history. Altruism among family members is based partly on shared genes and partly on shared norms and identity. Assignment to tasks is regulated by social roles and enforced through – sometimes extreme – peer pressure. Reciprocation is delayed and contingent on continued good standing in the group. Agency and autonomy are limited and collective responsibility and decision making are the norm.

The second lesson is the role that natural rivalry plays in the functioning of markets. Competition and rivalry seem to be natural human tendencies. When competing for an homogeneous good, convergence to a single price may be because people do not want to pay more – or receive less – than others. This induces them to search until they are secure that information about the price they paid or received will not subsequently subject them to ridicule. Markets for non-homegeneous goods are arguably much more complex. Yet heuristics derived from competition for mates perform reasonably well in ensuring rapid convergence to a stable matching equilibrium. This suggests that people naturally have strong heuristics on how to compete for trading partners. These two observations probably explain why simple markets develop organically with little formation institutions. However, competition and rivalry also predict

opportunistic behavior, including a proclivity towards opportunistic breach of contract – either to get ahead of competitors, or to get ahead of the other party to the contract. This is what creates the need for deterrence.

Much thinking on breach deterrence assumes rational thinking: people abide by contract terms if the cost of the combined punishment they will credibly incur exceeds the benefit from breach. This implies that when people make choices that endanger their ability to complete a contract, they must weight the risk of punishment with the benefit from deviation. Drawing from a large literature on risk avoidance, we made a number of observations that have important implications for market development. We first noted that punishment may not be regarded as legitimate if default is regarded as excusable. Individuals coming from a self-provision world may have a generous definition of what constitutes excusable default, in part because of the leakage of norms from the self-provision domain into the market domain. This tendency combines with lack of asset to create a culture of impunity: people take risks but do not regard themselves liable for the consequences. In particular they divert resources to serve personal or family needs even though this reduces their chance of completing a contract. This impedes market development and results in inefficient forms of market exchange, such as cash-and-carry, when the ability to obtain deliveries and pay upon receipt of an invoice would provide much needed financing. If this obstacle can be overcome, however, regret avoidance and 'told you so' heuristics can generate strong contractual discipline. This may explain how business groups with strong market ethics can develop rapidly even in environments characterized by widespread opportunism.

Breach deterrence relies on punishment. How is punishment for breach of contract perceived by humans? For a punishment to be effective, it must be legitimate, and to be legitimate it must correspond to a sense of moral duty. Many moral norms are defined in absolute terms, e.g., 'Thou shall not kill' or 'Thou shall not steal'. Punishment for contractual breach, like all contractual incentives, is conditional on behavior. This does not necessarily come naturally to people. Human beings come equipped with an innate punishment mechanism: moral outrage. This is an emotion triggered by the sense of being wronged. Combined with rivalry, it leads people to punish breach of contract as an emotional response, not necessarily because they understand conditional cooperation at a rational, purposive level. When

punishment for breach arises out of an emotional response, punishment may go beyond what is reasonable, and may even go against one's self-interest. Yet, to the extent that this emotional response is anticipated – and found legitimate – it can serve as effective deterrent.

5.3. Implications for formal and informal institutions

What implications can we draw from these lessons regarding formal institutions? Here is a tentative list:

1. We should recognize that the family, not the individual, is the building block for thinking about contracts. This means integrating collective responsibility and joint agency into the policy thinking about market institutions.

2. While competition and rivalry ensure convergence to the law of one price and motivate people to search for efficient matches, we nonetheless should seek to curb excessive manifestations of rivalry – not only crime and riots, but also cheating and shirking in contracts. Market efficiency requires fair competition.

3. Formal institutions can help clarify what constitutes excusable default in a particular society at a particular point in time. They can also clarify property rights at a time when societies evolve from joint to individual responsibility and ownership (e.g., Aldashev et al. 2011, 2012)

4. Contract law should be thought of as a model moral code about conditional cooperation in contracts. It must be simple and it must follow principles that have a clear moral legitimacy, which means that it must adapt to local preferences about process.

5. Contract law should be combined with rules about proportional retaliation in order to tame the excesses driven by moral outrage. Deterrence is good, but excessive retaliation can be counter-productive if it discourages people from entering in contracts.

6. Other formal institutions, such as schools and universities, can also play an important role in fostering the adoption of social norms that are conducive to market exchange and hierarchical organizations (e.g., Cantoni and Yuchtman 2010).

We also draw some implications for informal institutions:

1. The family has to adapt to new methods of assigning people to task, i.e., through self-employment and wage work.

2. Individuals, kinship groups, and tribes have to curb excessive expressions of rivalry, lest they face punishment from the state (assuming the state is strong enough).

3. People have to progressively accept responsibility for the consequences of their actions in contractual situations. In exchange, the market provides much more individual agency. Negotiating the transition from collective responsibility to individual responsibility is part of the transition to markets.

4. People have to internalize contract law as a new moral code. They must learn to act strategically, that is, to follow norms of conditional reciprocity in market situations. Playing strategic games as a child may help develop familiarity with conditional play.

5. People must learn to control their emotions – anger and moral outrage – when confronted with contract breach. This becomes more necessary once formal and informal institutions supersede emotions as the main breach deterrence mechanism.

This requires a long-lasting, multi-faceted learning process. There is a role for parents, schools, and churches to play, in addition to the state and international actors. Communities and groups that learn these rules earlier are at an advantage. This means that a successful transition to a full market economy also requires dealing with competition between groups – e.g., ethnic riots; looting of shops and businesses; expulsion or victimization of business communities. Autocrats and populists the world over have too often found it expedient to divert public frustration against business communities instead of themselves. The cost in terms of market development cannot be underestimated. If these rivalries cannot be abated, e.g., through predictable and fair taxation of business income, communities that are successful in business are unable to sustain themselves over time, and fail to serve as role model for the rest of the population. This slows down market development and growth.

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